



US Army Corps  
of Engineers  
Seattle District



# Joint Public Notice

## Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers  
Regulatory Branch  
Post Office Box 3755  
Seattle, WA 98124-3755  
Telephone (206) 764-6907  
Attn: Jack Kennedy, Project Manager

WA Department of Ecology  
SEA Program  
Post Office Box 47600  
Olympia, WA 98504-7600  
Telephone (360) 407-6068

Public Notice Date: April 10, 2009  
Expiration Date: May 10, 2009

Reference No.: NWS-2008-350  
Name: King County Department of  
Transportation

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the United States as described below and shown on the enclosed drawings.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA). Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

**APPLICANT:** King County Department of Transportation  
Road Services Division  
201 South Jackson Street  
Seattle, Washington 98104  
ATTN: Tina Morehead  
Telephone: (206) 296-3733  
E-mail: Tina.Morehead@kingcounty.gov

**LOCATION:** In wetlands abutting or adjacent to Colin Creek, Stensland Creek and Evans Creek, in Evans Creek and Stensland Creek, and in wetlands abutting tributaries of Mackey Creek northeast of Redmond, King County, Washington. Figure 1, one of three graphics attached after the Public Notice text and before the Public Notice drawings, shows the location of all the wetlands in the project corridor.

**WORK:** The King County Road Services Division, with funding from the Federal Highway Administration (FHWA), proposes to widen a quarter-mile section of Union Hill Road, create a new mile-long north-south arterial based on 196<sup>th</sup> Avenue NE, and widen a 3-mile stretch of Novelty Hill Road.

- The Union Hill Road segment would widen NE Union Hill Road from 192<sup>nd</sup> Avenue NE to 196<sup>th</sup> Avenue NE from its existing 2-lane configuration to 4 lanes (two in each direction) and feature pedestrian and bicycle facilities. One wetland would receive 0.01 acre of fill in this road segment widening, and the current 25-foot wide, 21 foot long bridge over Evans Creek would be replaced with a new bridge 65 feet wide and 81 feet long. See drawing sheets 4 and 5 for details on this section of the project. Large Woody Debris (LWD) and boulders would be placed in this stretch of Evans Creek

- 196<sup>th</sup> Avenue NE, currently a 2-lane rural roadway, would be converted to a 2-lane north-south arterial connecting Union Hill Road and Novelty Hill Road. The arterial would feature two 12-foot wide lanes and 8-foot wide shoulders, turning lanes at Perrigo Community Park, and multi-lane approaches to roundabout intersections at NE Union Hill Road and NE Novelty Hill Road. The arterial would follow 196<sup>th</sup> Avenue NE's current alignment between NE Union Hill Road and NE 95<sup>th</sup> Street. The arterial would then continue north to NE Novelty Hill Road on 800 feet of new roadway on an alignment shifted slightly westward, crossing Stensland Creek with a 40-foot long bridge to allow for natural channel migration and the passage of large mammals under the roadway. Five wetlands would be permanently affected with 0.37 acre of roadway fill. See drawing sheets 6 through 21. Tributaries 08.0107 and 08.0107A are streams that have been routed into roadside ditches and excavated channels in recent decades. Both would be moved out of ditches on the east side of 196<sup>th</sup> Avenue NE, conveyed under the road in new fish-passable culverts, and flow eastward, towards Evans Creek. See drawing sheets 8 and 10.
- The NE Novelty Hill Road improvements would convert the road's two-lane segment to four and five lanes between NE Novelty Hill Road's new intersection with 196<sup>th</sup> Avenue NE on the west end to 234<sup>th</sup> Place NE on the east end. The east end joins up with an existing 4-lane roadway, and the west end joins up with multi-lane approaches to and from Avondale Road NE, west of the 196<sup>th</sup> Avenue NE roundabout. NE Novelty Hill Road would be 4 lanes from 234<sup>th</sup> Place NE to 224<sup>th</sup> Avenue NE, five lanes from 224<sup>th</sup> Avenue NE to 208<sup>th</sup> Avenue NE, and four lanes between 208<sup>th</sup> Avenue NE and 196<sup>th</sup> Avenue NE. All lanes would be 12 feet wide and the entire segment would have 5-foot wide shoulders in both directions. Parts of seven wetlands would be affected with 0.29 acre of permanent roadway fill. See drawing sheets 21 through 42. Parts of eight wetlands would experience 0.21 acre of temporary impacts from the NE Novelty Hill portion of the work..

Three stormwater treatment facilities would be constructed by King County to provide stormwater detention and water quality treatment. The stormwater facilities include:

- The Novelty-Colin facility is located near the east end of the NE Novelty Hill Road segment, about 1,200 feet west of 234<sup>th</sup> Place NE; the proposed project includes enhancement of the existing 1.19-acre facility. See drawing sheet 41.
- The Novelty-Bear facility, consisting of about 5 acres of land, would be located on the 196<sup>th</sup> Ave segment about 700 feet southwest of the new intersection of NE Novelty Hill Road and 196<sup>th</sup> Avenue NE. See drawing sheet 20.
- The 196<sup>th</sup>-Evans facility, consisting of about 2 acres of land, would be located on the 196<sup>th</sup> segment approximately 1,500 feet northwest of the intersection of NE Union Hill Road and 196<sup>th</sup> Avenue NE. See drawing sheet 8.

Roadway construction for the entire project would result in 0.67 acre of permanent wetland impact and 0.48 acre of temporary wetland impact. It would also result in 3.49 acres of permanent buffer impact and 1.88 acres of temporary buffer impact. The mitigation, while enhancing 1.10 acres and creating 3.42 acres of wetland, would indirectly impact on 0.92 acre of one existing wetland (the rerouting of Stensland Creek would dewater Wetland 2128, see drawing pages 15 and 16) and temporarily impact 0.80 acre of four existing wetlands (see mitigation details on the lower reach of Stensland Creek, near the top of page 4 of this public notice).



Evans Creek and Stensland Creek will be bridged by NE Union Hill Road and 196<sup>th</sup> Avenue NE, respectively. Four undersized culverts in fish-bearing streams would be replaced with larger bottomless or gravel-bottomed culverts (see drawing sheets 8, 13, 15, and 16), and five culverts in other streams would be lengthened (see drawing sheets 30, 31, 37, 38, and 42).

**PURPOSE:** The purpose of the project is to increase vehicular capacity, address existing traffic congestion, traffic demand, and projected growth through 2030 in the Bear Creek planning area. The project would widen a major arterial and provide it with connections to Redmond-area employment and service centers and separate connections to State Route 520.

**ADDITIONAL INFORMATION:** Copies of this public notice which have been mailed or otherwise physically distributed feature project drawings in black and white. The electronic version features those same drawings in color, which we think more accurately communicates the scope of project impacts. To access the electronic version of this public notice, go to the Seattle District's web page at <http://www.nws.usace.army.mil/> and scroll down the alphabetical listing of District elements, and click on "Regulatory" and then "Regulatory – Permits" for the Seattle District's Regulatory homepage. Select the prominently displayed "Public Notices" heading and a list of recently-issued public notices will appear, in chronological order of the date of issuance. Select and view the listing for this project.

**MITIGATION:** Numerous steps were taken during the planning process to avoid or minimize impacts this project would have on aquatic resources. Impacts to seven wetlands in the project area were avoided by selective alignment of the roadway. In areas where impacts to Category I and II wetlands could not be avoided, and where appropriate, retaining walls have been proposed to minimize the impact.

To minimize the water quality and hydrologic impacts on stream and wetlands, porous pavement would be used on shoulders and pedestrian paths, reducing the overall impervious pavement added by the project. Additionally, 1.7 miles of the NE Novelty Hill Road segment would be constructed as four lanes with a vegetated median strip, eliminating the impervious surface associated with a center-turn lane. This design feature results in about 2.5 acres less of impervious surface than would be needed for a center-turn lane design. Bioretention areas (sometimes called rain gardens) are also proposed along the roadway to encourage onsite infiltration of stormwater runoff.

Compensatory mitigation is described in a document entitled *NE Novelty Hill Road Project Natural Resources Conceptual Mitigation Plan* dated October 2008. The mitigation was developed based on federal, state, and local policy guidance and the watershed planning guidance in the *WRIA 8 Chinook Salmon Conservation Plan*. Wetland and stream impacts that could not be avoided would be compensated by construction of four mitigation sites located throughout the project area. The mitigation's main focus is on restoring and enhancing streams and wetlands in the Stensland Creek system, which is a tributary to Bear Creek. The four sites selected for mitigation include the Stensland Creek Mitigation Site, the Union Hill Terrace Mitigation Site, the Bear-Evans Valley South Mitigation Site, and the Evans Creek Bridge Crossing Mitigation Site.

a. The Stensland Creek (Upper, Middle, Lower Reaches) Mitigation Site has three major components:

-- Mitigation in the upper reach of Stensland Creek would be located in a ravine where the stream currently flows westward, south of and parallel to NE Novelty Hill Road. Mitigation would include removal of one fish-blocking culvert and enhancement of 1,400 linear feet of channel through the placement of LWD and boulders.

-- Mitigation in the middle reach of Stensland Creek would occur on a 17-acre parcel directly adjacent to the west side of the new 196<sup>th</sup> Avenue NE extension. Mitigation would include stream and wetland buffer enhancement as well as stream channel restoration. Also, an existing culvert that

is partially fish-impassable conveys Stensland Creek under NE 95th Street. It would be replaced with a fish-passable culvert meeting state standards.

--Mitigation in the lower reach of Stensland Creek would occur on conservation easements across three adjacent private properties on the south side of NE 95th Street and cover 7.5 acres. It would enhance about 1 acre of riverine wetlands and create another 3.25 acres of riverine wetlands, using a series of berms, riffles, benches and varying depths to create braided flow across the former flood plain. Stream mitigation involves a new 1,450-foot long corridor with primary and secondary channels, and takes advantage of the new stream dynamics resulting from the aforementioned wider bridge and culvert on for Stensland Creek on 196<sup>th</sup> Ave NE and NE 95<sup>th</sup> Street, respectively.

Mitigation also restores a year-round connection between Stensland Creek and Bear Creek. The relocation of this reach of Stensland Creek would dewater a 0.92 acre wetland (see wetland 2128 in the lower left center of drawing page 16). King County would recreate the lost wetland further downstream, in the area shown on page 15 of the drawings. An additional 0.5 acre of riparian wetland would experience temporary disturbance.

b. Union Hill Terrace Mitigation Site is located on a 2.8-acre site near the northeast corner of NE Novelty Hill Road and 208<sup>th</sup> Avenue NE, in the headwaters of Mackey Creek. The site includes Wetland 0248, a Category II depressional wetland with forested, scrub shrub, aquatic bed, and open water vegetation classes. Mitigation on this site is associated with Wetland 0248 and includes wetland creation (0.17 acre), and wetland and buffer enhancement (0.30 acre). Mitigation activities also involve demolition of existing landscaping-related structures on the site and regrading to establish appropriate elevations for wetland conditions. A winding shoreline of long shallow slopes would be graded to establish communities of thin-stemmed emergent plants including mannagrass, sedges, rushes, and bullrush. These plants would provide breeding habitat for dragonflies and native amphibians, including long-toed salamanders, Pacific tree frogs, Northwestern salamanders, and red-legged frogs. The proposed mitigation activities would increase wetland area, improve hydrologic functions, water quality functions, and habitat functions at both a local and landscape scale. This mitigation work would grade 0.01 acre and temporarily disturb 0.24 acre of wetland.

The total package of wetland mitigation King County proposes does include two other restorative actions which the Corps considers self-mitigating and in line with the *WRIA 8 Chinook Salmon Conservation Plan*.. They are included in this public notice for evaluation by other resource agencies and as a matter of public information:

c. The Evans Creek Bridge Crossing Site is located in Evans Creek underneath the new bridge on NE Union Hill Road. The existing bridge over the stream only allows for a 20-foot-wide stream channel (from bank to bank), with vertical concrete walls at the channel edges. The new bridge will span 81 feet and provide a channel with naturally contoured banks. The longer bridge span was designed to allow channel and habitat forming processes to occur more naturally than under present constrained conditions. LWD, boulders, and stream gravel would be added in the new stream channel to improve conditions for salmon species using slow-water areas for juvenile rearing.

d. The Bear-Evans Valley South Site is located in the Evans Creek Sub-basin on a 2-acre parcel west of 196th Avenue NE about 1,500 feet north of the intersection with NE Union Hill Road. Tributary 08.0107 would be moved out of the existing ditch on the east side of 196th Avenue NE, and be conveyed underneath the road in a new fish-passable culvert. The stream would then flow in a relocated channel for about 500 feet towards Evans Creek. LWD and streambed gravels would be placed in the stream reach west of 196<sup>th</sup> Avenue NE to create fish habitat higher in quality and quantity than exists in the stream's present routing. The buffer would be enhanced with native vegetation in order to establish a forested riparian environment that would provide shade to the stream, a source of LWD, bank stabilization, filtration for runoff, and terrestrial wildlife habitat.

A copy of the *NE Novelty Hill Road Project Natural Resources Conceptual Mitigation Plan* is available for review at the office of the Corps' Seattle District Regulatory Branch. Copies are also available upon request from the applicant at the telephone number and address listed on the front page of this public notice.

**ENDANGERED SPECIES ACT (ESA):** The FHWA, as the lead agency for ESA consultation, has consulted with the National Marine Fisheries Service (NMFS) as required under Section 7 of the ESA. They have determined that the project may affect, but is not likely to adversely affect Chinook salmon and steelhead trout. NMFS concurred with that determination on April 8, 2008. FHWA determined the work would have no effect on species listed by the U.S. Fish and Wildlife Service.

**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area, but will have no adverse effect on EFH.

The FHWA, as the lead agency for a determination regarding EFH, has consulted with the NMFS. FHWA has determined and received concurrence from NMFS, that the project will have no adverse effect on EFH species.

**CULTURAL RESOURCES:** The FHWA, as the lead agency for determining compliance with Section 106 of the National Historic Preservation Act, has initiated consultation with the State Historic Preservation Office. This public notice initiates consultation under Section 106 of the National Historic Preservation Act with any Tribe that has information or concerns with historic properties in the proposed permit area.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

**EVALUATION – CORPS:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

**EVALUATION – ECOLOGY:** Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

ADDITIONAL EVALUATION: This proposal will be the subject of Shorelines Substantial Development (SDP) Permit number L09SH001, being processed by King County.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposal. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commentor's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

COMMENTS TO CORPS: All e-mail comments should be sent to [jack.kennedy@usace.army.mil](mailto:jack.kennedy@usace.army.mil). Conventional mail comments should be sent to U.S. Army Corps of Engineers, Regulatory Branch, Attn: Jack Kennedy, Post Office Box 3755, Seattle, Washington, 98124-3755.

COMMENTS TO ECOLOGY: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Department of Ecology, Attn: SEA program – Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington, 98504-7600, or e-mail to [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: King County Road Services Division, NWS-2008-350.

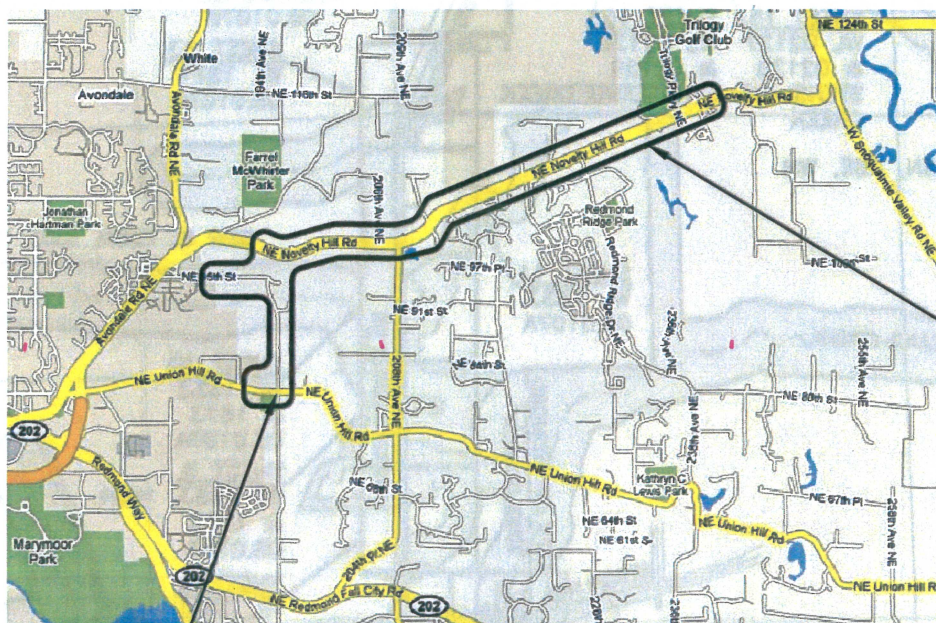
Encl: Figures (45)





### VICINITY MAP

SCALE: NTS



### SITE MAP

SCALE: NTS

196TH AVE/UNION HILL RD  
INTERSECTION  
LONGITUDE 122° 04' 44" W  
LATITUDE 47° 40' 30" N

### DIRECTIONS:

SR 520 EAST TO AVONDALE ROAD NE.  
TURN RIGHT ON UNION HILL ROAD,  
TRAVEL EAST (APPROX. 1.3 MI) TO  
196TH AVENUE NE

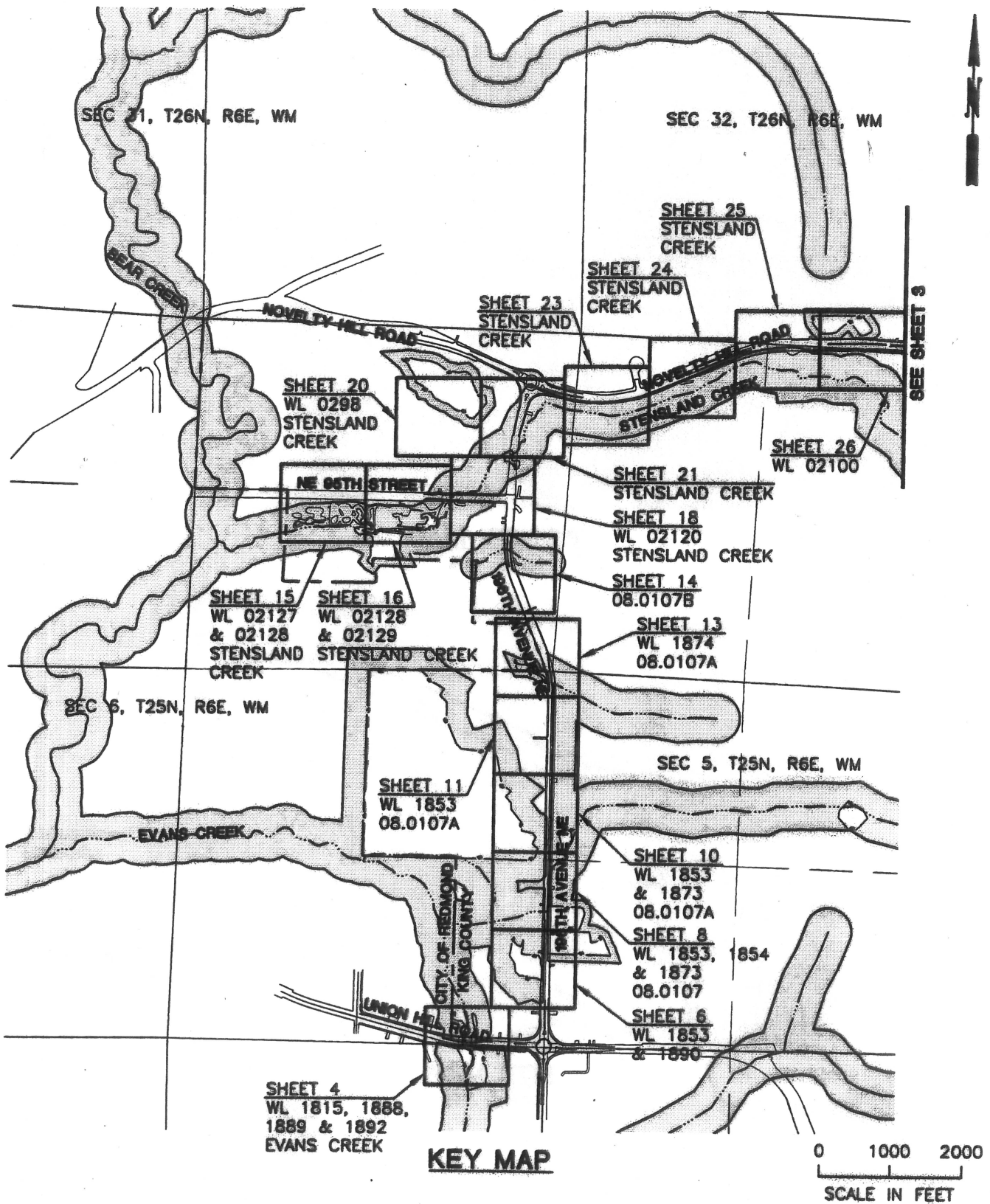
**PURPOSE:** INCREASE CAPACITY  
**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**

**NAME:** KING COUNTY/BEAR CREEK BASIN  
& EVANS CREEK BASIN  
**REFERENCE:**  
**SITE LOCATION ADDRESS:**  
UNION HILL RD, NOVELTY HILL RD  
196TH AVE NE, AND NE 95TH ST

**PROPOSED:** ROADWAY IMPROVEMENTS  
**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA  
**SHEET:** 1 OF 45  
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





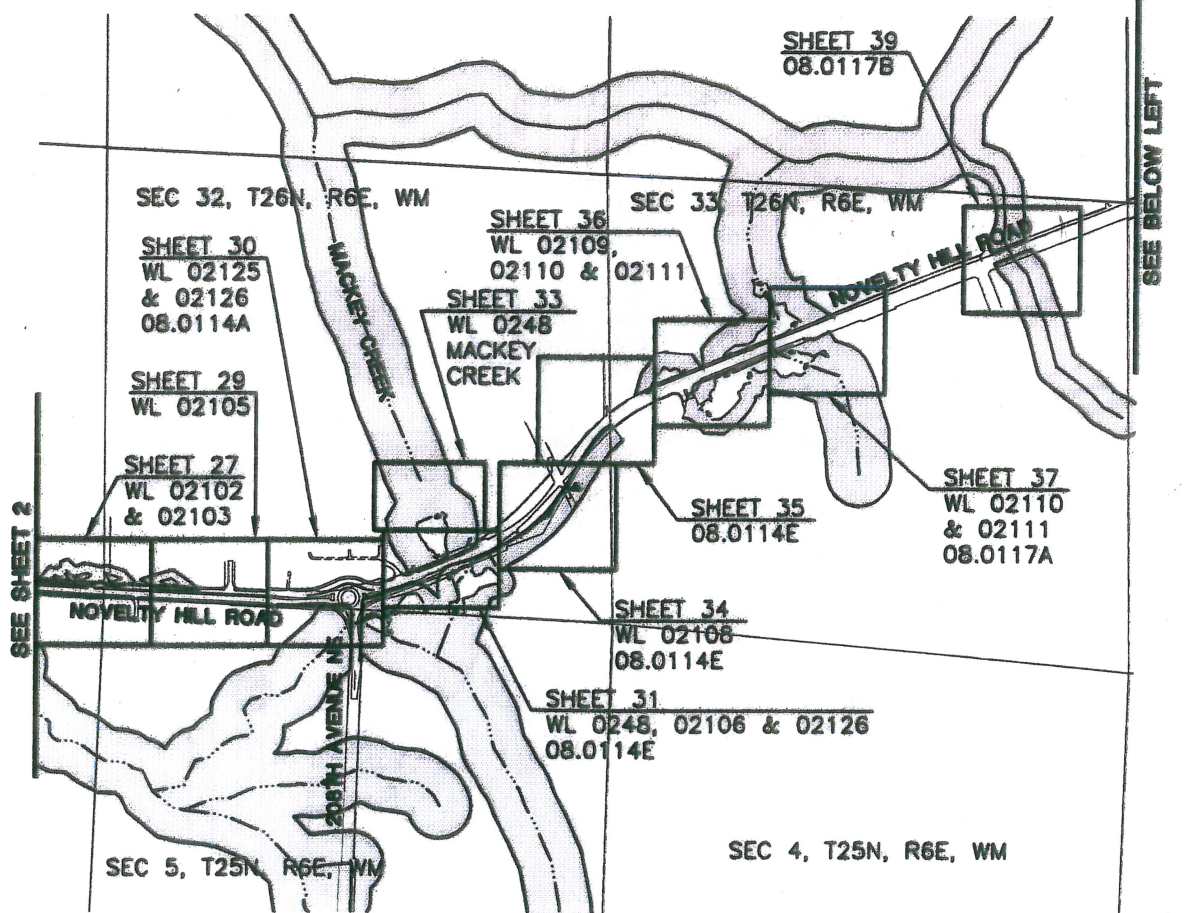
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**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**

**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:** & EVANS CREEK BASIN  
**SITE LOCATION ADDRESS:**  
 UNION HILL RD, NOVELTY HILL RD  
 196TH AVE NE, AND NE 95TH ST

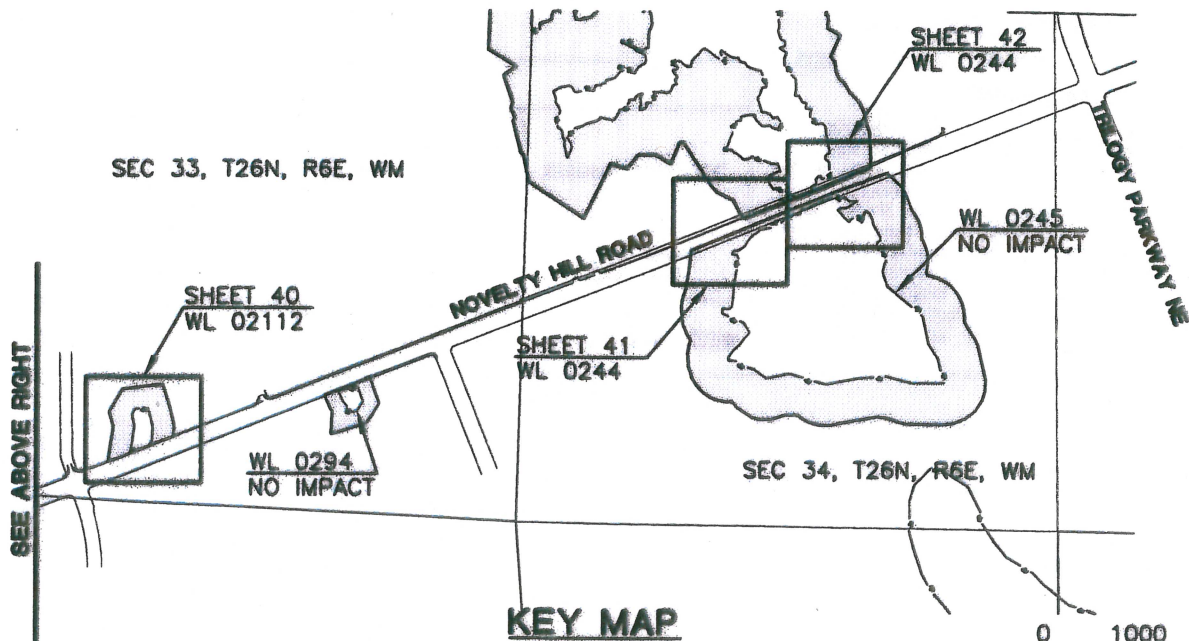
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**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA  
**SHEET:** 2 OF 45  
**DATE:** JANUARY 2009

COE Ref. No.  
 NWS-2008-350





**KEY MAP**



**KEY MAP**

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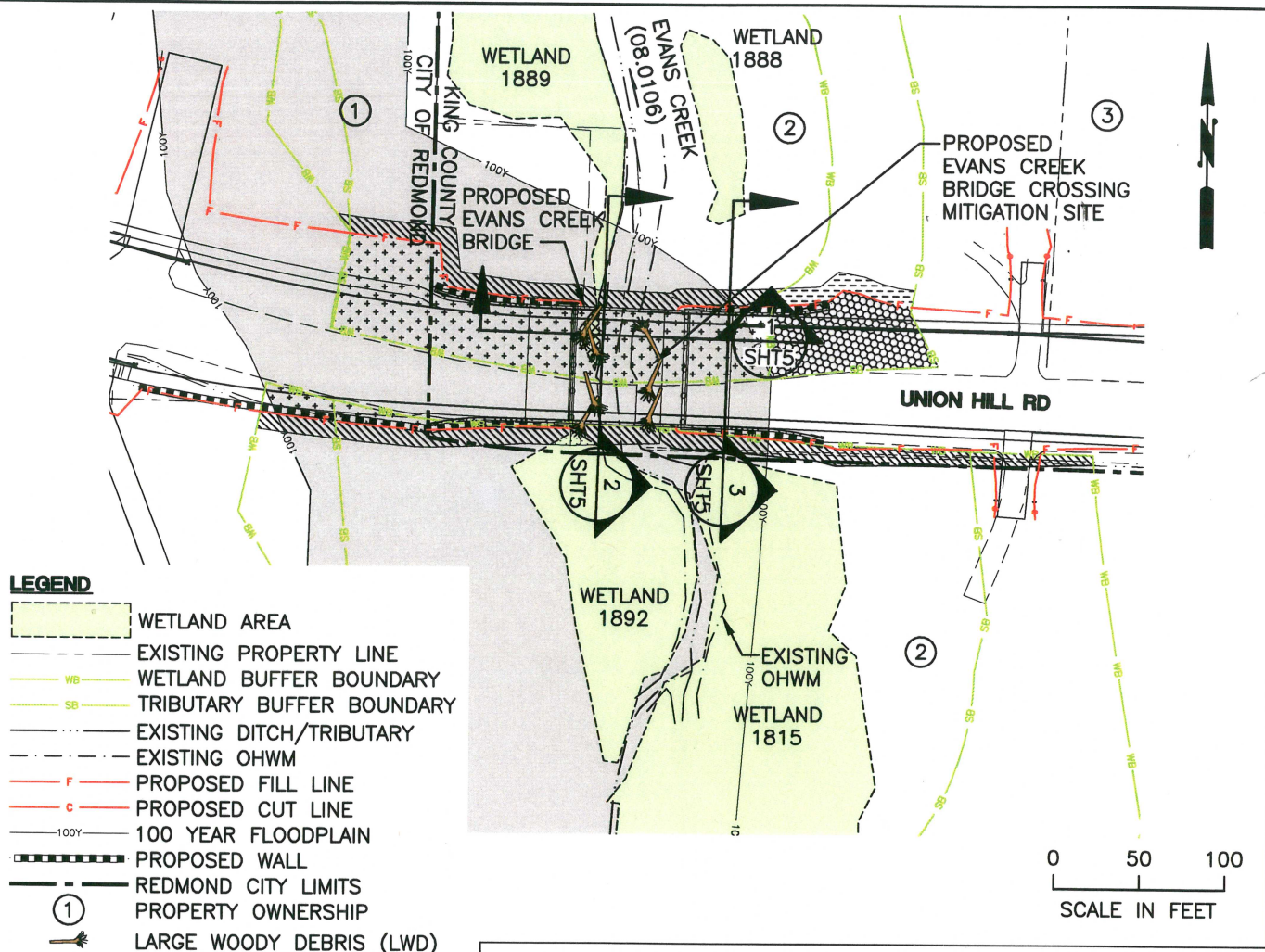
**PURPOSE:** INCREASE CAPACITY  
**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**

**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:**  
**SITE LOCATION ADDRESS:**  
NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS  
**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA  
**SHEET 3 OF 45**  
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





#### WETLAND VEGETATION PRESENT:

HIMALAYAN BLACKBERRY, TRAILING BLACKBERRY, EVERGREEN BLACKBERRY, SALMONBERRY, RED ALDER, BIG-LEAF MAPLE, DOUGLAS FIR, VINE MAPLE, WESTERN RED CEDAR, INDIAN PLUM, ENGLISH HAWTHORNE, ENGLISH HOLLY, COMMON SNOWBERRY, SWORD FERN, YOUTH-ON-AGE, RIB PLANTAIN, RED FESCUE, TALL FESCUE, CREEPING BENTGRASS, SELF-HEAL, PINK FLOWER, TUFTED VETCH, TALL BUTTERCUP, REED CANARYGRASS, OREGON ASH, PACIFIC WATERLEAF, TOUCH-ME-NOT, NON-NATIVE FRUIT APPLE, NON-NATIVE FRUIT TREE, PACIFIC NINEBARK

#### TRIBUTARY IMPACTS

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
EVANS CREEK (08.0106)	S	45	0.09	0.02

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
1815	I	0.69	0.00	0.00	0.00	0.06
1888	III	0.06	0.00	0.00	0.01	0.01
1889	II	0.24	0.01	0.01	0.28	0.05
1892	I	0.25	0.00	0.01	0.03	0.06

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNION HILL INVESTMENTS LLC
2. CITY OF REDMOND
3. UNION SHARES LLC

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**  
UNION HILL RD NE  
196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

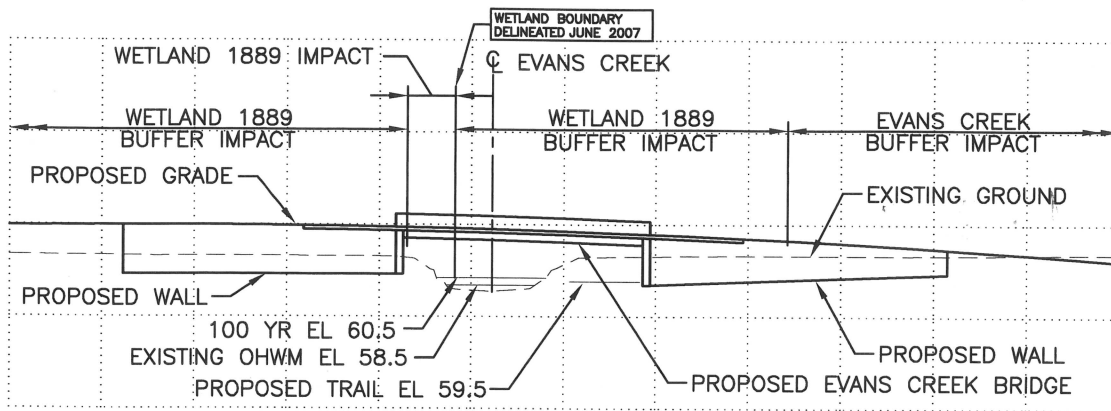
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**STATE:** WA

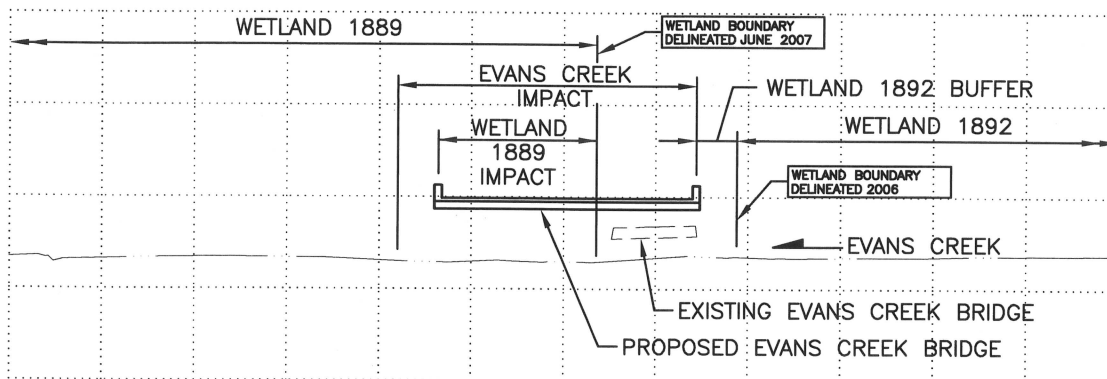
**SHEET 4 OF 45**

**DATE:** JANUARY 2009

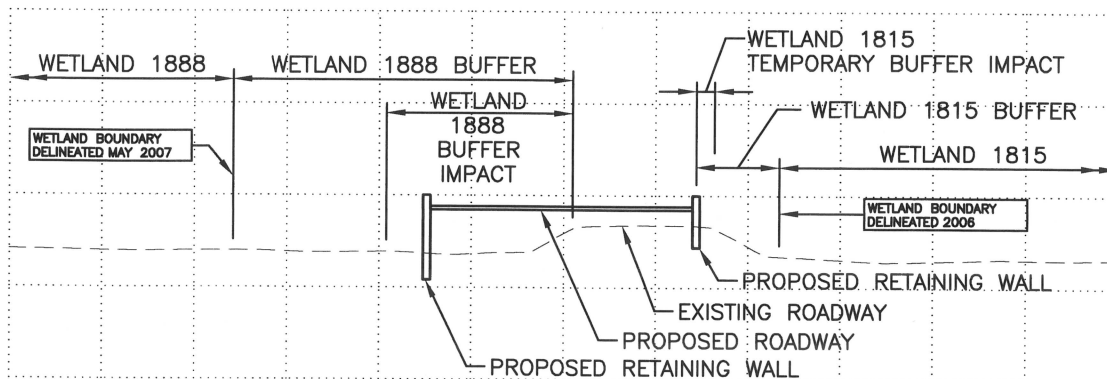
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NWS-2008-350



**SECTION 1**  
SHT4



**SECTION 2**  
SHT4



**LEGEND**

← WETLAND/BUFFER CONTINUED

**SECTION 3**  
SHT4

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNION HILL INVESTMENTS LLC
2. CITY OF REDMOND
3. UNION SHARES LLC

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**  
UNION HILL RD NE  
196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET 5 OF 45**

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- PROPOSED DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- ① PROPERTY OWNERSHIP

## **WETLAND VEGETATION PRESENT:**

CANADIAN THISTLE, COMMON VELVETGRASS, REED CANARYGRASS, SOFT RUSH, TALL FESCUE, TALL BUTTERCUP, CREEPING BUTTERCUP, GRASSES, WHITE CLOVER, COLONIAL BENTGRASS

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
1853	I	26.68	0.03	0.03	1.02	0.57
1890	IV	1.39	0.08	0.04	0.05	0.02

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNION SHARES LLC
2. GREGORY EWING
3. ROY GARDNER JR.
4. KATHLEEN STEEH

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE BETWEEN UNION HILL RD AND NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

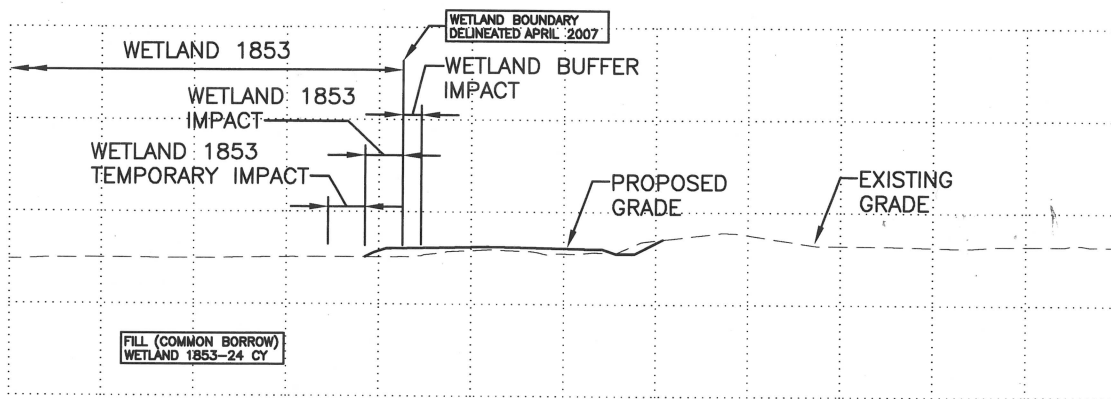
**COUNTY:** KING

**STATE:** WA

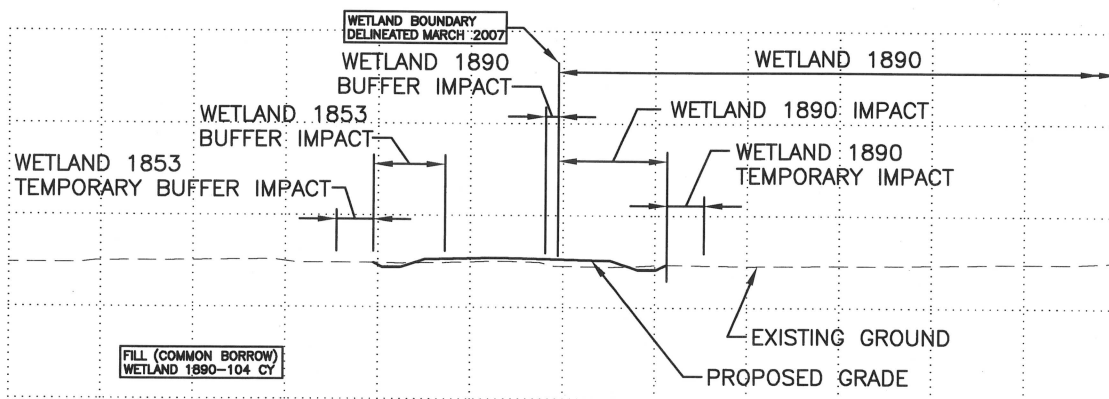
**SHEET:** 6 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



SECTION 4  
SHT6



SECTION 5  
SHT6

**LEGEND**

WETLAND CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNION SHARES LLC
2. GREGORY EWING
3. ROY GARDNER JR.
4. KATHLEEN STEEH

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE BETWEEN UNION HILL RD AND NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

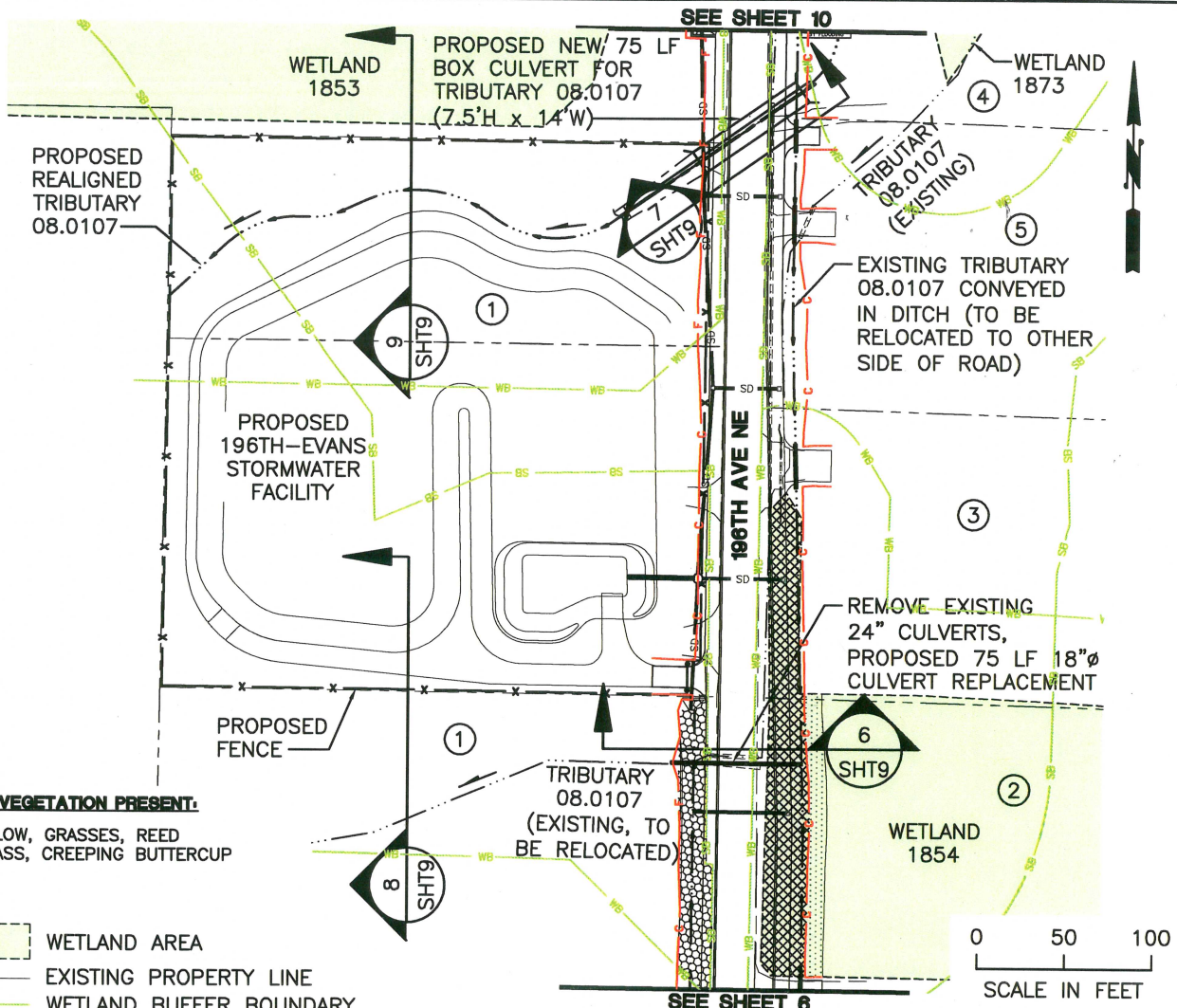
**COUNTY:** KING

**STATE:** WA

**SHEET 7 OF 45**

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



#### WETLAND VEGETATION PRESENT:

WHITE WILLOW, GRASSES, REED  
CANARYGRASS, CREEPING BUTTERCUP

#### LEGEND

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- PROPOSED DITCH/TRIBUTARY
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PROPOSED STORM DRAIN
- 1 PROPERTY OWNERSHIP
- PROPOSED CULVERT

#### TRIBUTARY IMPACTS

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0107	F	590	1.25	0.08

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
1853	I	26.68	0.03	0.03	1.02	0.57
1854	IV	0.92	0.14	0.04	0.10	0.04
1873	II	0.26	0.00	0.07	0.10	0.14

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:** 1. UNION SHARES LLC 2. KATHLEEN STEEH 3. DOUGLAS HART 4. WILLIAM MIX & SUSAN SWAN 5. VIRGINIA SCOTT

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**  
196TH AVE NE BETWEEN UNION HILL RD AND NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

**SHEET 8 OF 45**

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

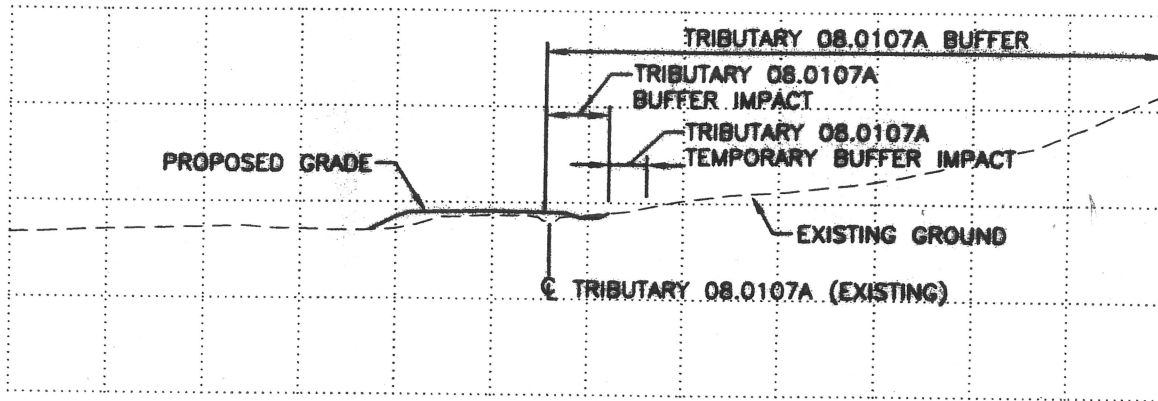












**SECTION** 11  
SHT11

**LEGEND**

— BUFFER CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. GORDON HOENIG
2. WILLIAM MIX & SUSAN SWAN

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE BETWEEN UNION  
HILL RD AND NOVELTY HILL RD

**PROPOSED ROADWAY IMPROVEMENTS**

**NEAR:** REDMOND

**COUNTY:** KING

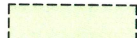


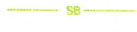
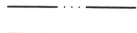







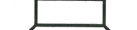

**STATE:** WA

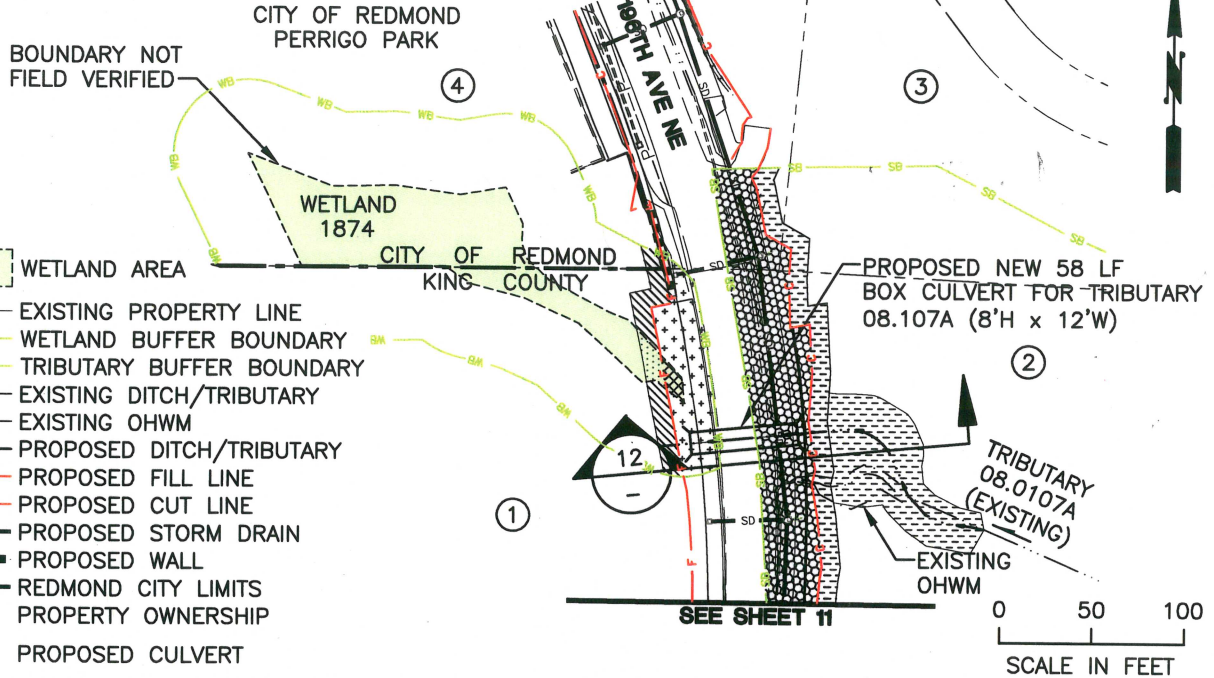
**SHEET:** 12 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

# **LEGEND**

-  WETLAND AREA
-  EXISTING PROPERTY LINE
-  WB WETLAND BUFFER BOUNDARY
-  SB TRIBUTARY BUFFER BOUNDARY
-  EXISTING DITCH/TRIBUTARY
-  EXISTING OHWM
-  PROPOSED DITCH/TRIBUTARY
-  F PROPOSED FILL LINE
-  C PROPOSED CUT LINE
-  SD PROPOSED STORM DRAIN
-  PROPOSED WALL
-  REDMOND CITY LIMITS
-  PROPERTY OWNERSHIP
-  PROPOSED CULVERT



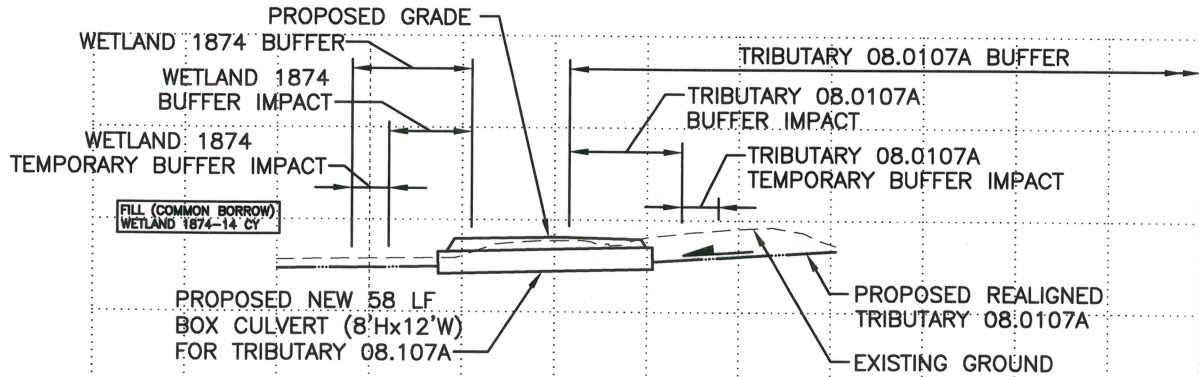
## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0107A	F	1507	0.56	0.36

## **WETLAND VEGETATION PRESENT:**

HIMALAYAN BLACKBERRY, SOFTRUSH

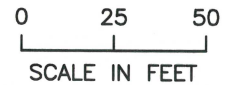
**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.



# **LEGEND**

← BUFFER CONTINUED

## **SECTION 12**



## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
1874	IV	0.18	0.01	0.01	0.06	0.03

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:** 1. GORDON HOENIG 2. WILLIAM MIX & SUSAN SWAN 3. RAY PATCH & KAREN RASLER 4. CITY OF REDMOND

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:** 196TH AVE NE BETWEEN UNION HILL RD AND NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

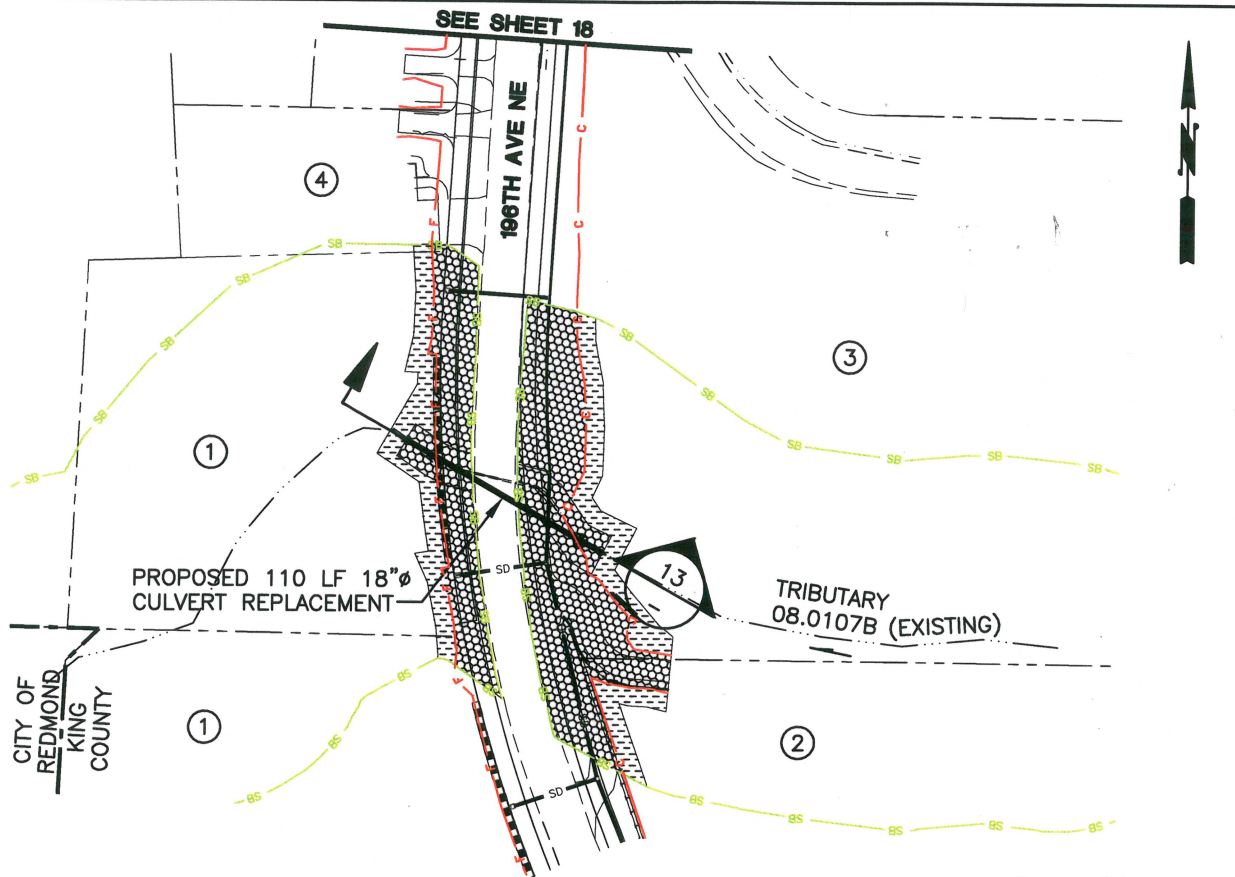
**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET:** 13 OF 45

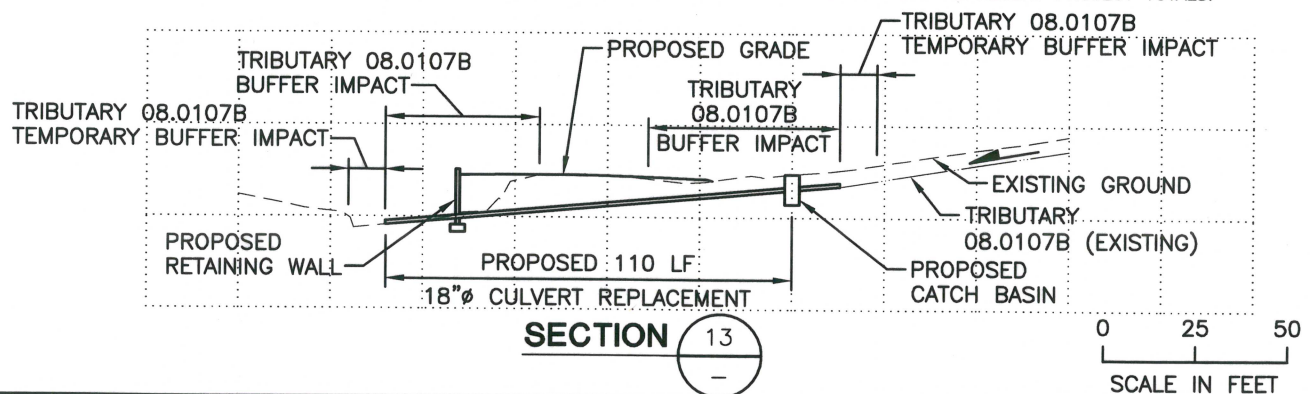
**DATE:** JANUARY 2009

COE Ref. No. NWS-2008-350



TRIBUTARY IMPACTS				
TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0107B	N	95	0.36	0.14

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:** 1. CITY OF REDMOND 2. BOYD & KARI MULTERER 3. LAKE WASH SCHOOL DIST. #414 4. MARIA & CONSTANTIN BADEA

**NAME:** KING COUNTY/EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:** 196TH AVE NE BETWEEN UNION HILL RD AND NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS  
STREAM/BUFFER

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

**SHEET** 14 OF 45

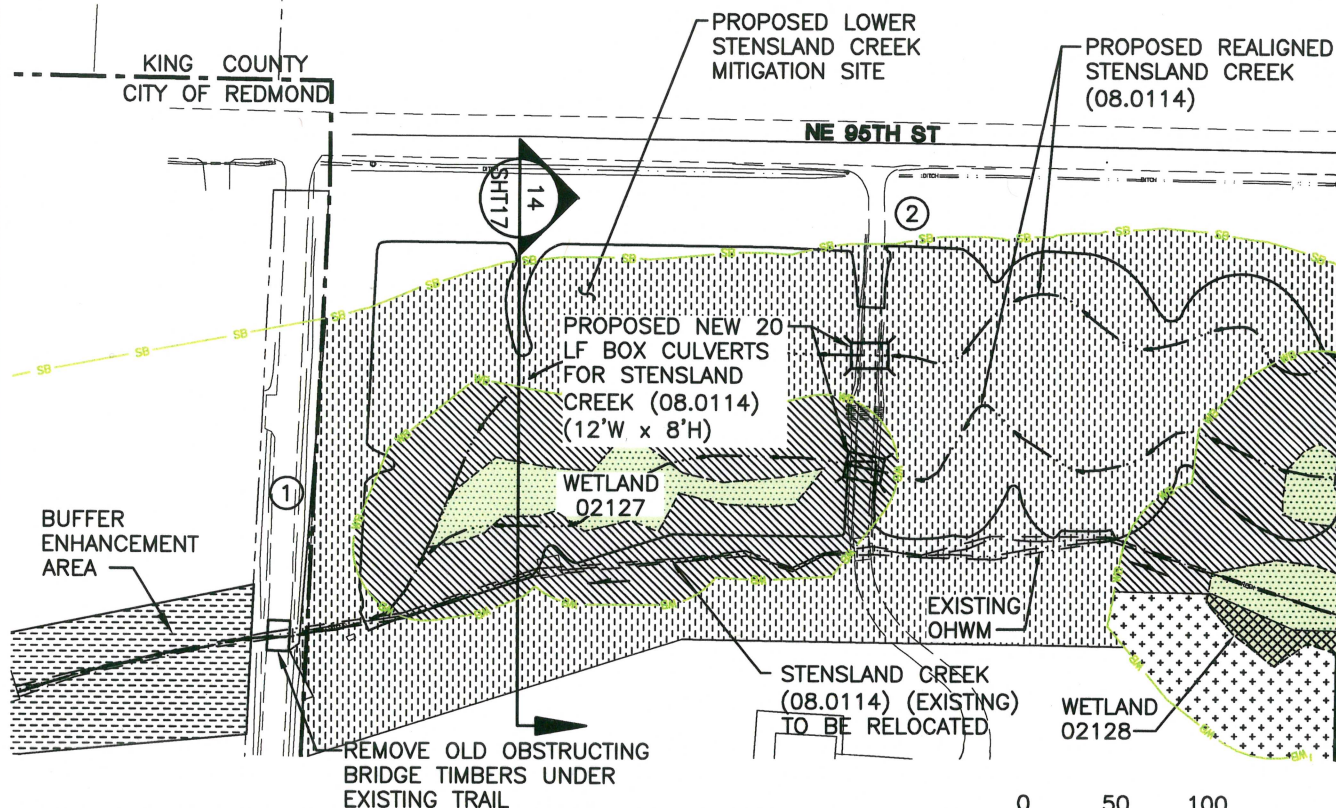
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COE Ref. No.  
NWS-2008-350

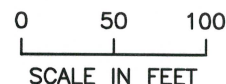


# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- PROPOSED DITCH/TRIBUTARY
- REDMOND CITY LIMITS
- 1 PROPERTY OWNERSHIP
- PROPOSED CULVERT



SEE SHEET 16



## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35

## **WETLAND VEGETATION PRESENT:**

SOFT RUSH, REED CANARYGRASS, COLONIAL BENTGRASS, PERENNIAL RYEGRASS, PASTURE GRASSES, RED ALDER, WEEPING WILLOW, ENGLISH HAWTHORNE

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02127	IV	0.12	0.00	0.12	0.00	0.58
02128	IV	1.15	0.92	0.23	1.08	0.69

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. CITY OF REDMOND
2. MARTHA HANSCOM

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NE 95TH ST BETWEEN AVONDALE RD AND 196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET:** 15 OF 45

**DATE:** JANUARY 2009

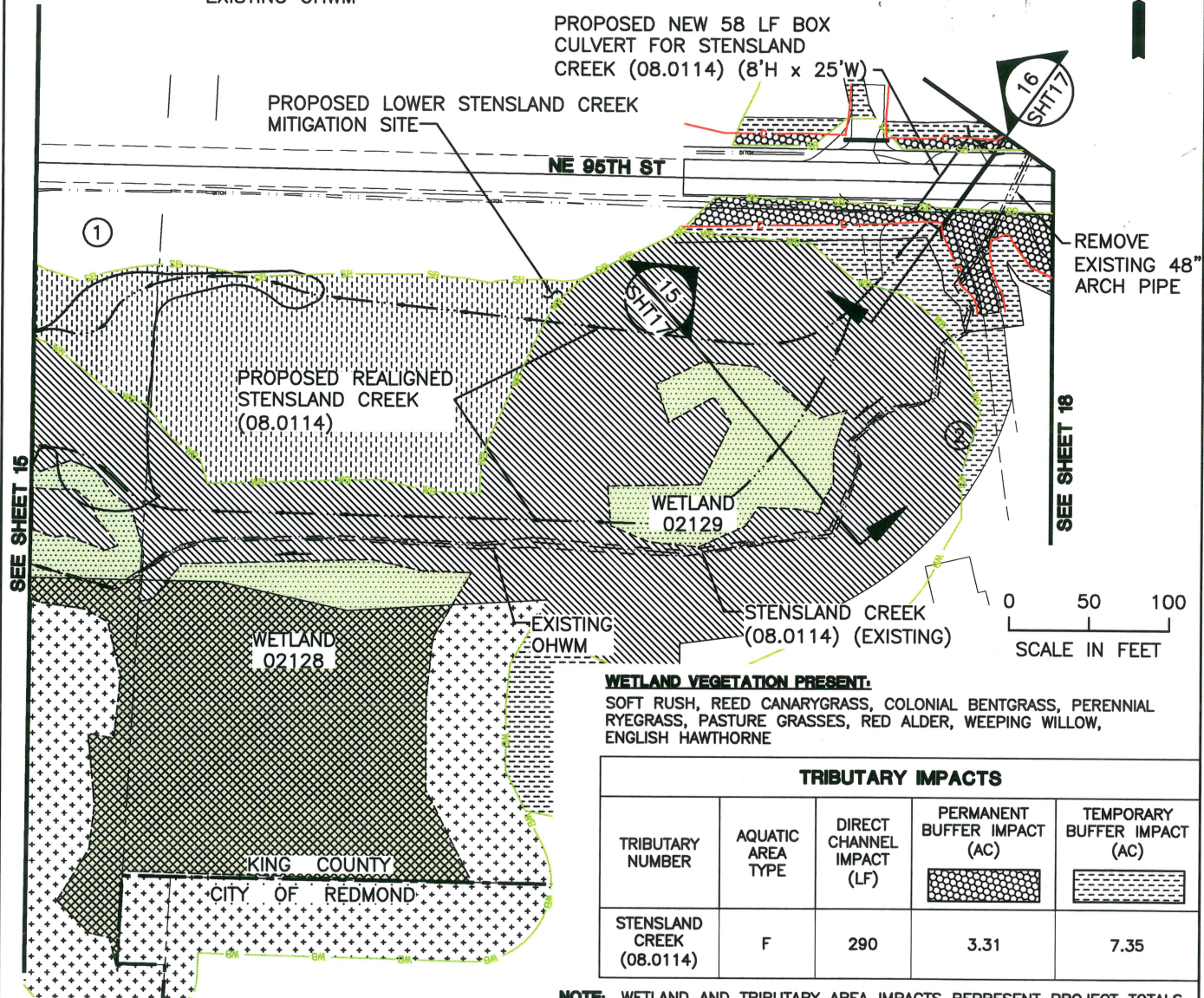
COE Ref. No.  
NWS-2008-350



# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM

- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PROPOSED DITCH/TRIBUTARY
- REDMOND CITY LIMITS
- PROPERTY OWNERSHIP
- PROPOSED CULVERT



## **WETLAND VEGETATION PRESENT:**

SOFT RUSH, REED CANARYGRASS, COLONIAL BENTGRASS, PERENNIAL RYEGRASS, PASTURE GRASSES, RED ALDER, WEEPING WILLOW, ENGLISH HAWTHORNE

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02128	IV	1.15	0.92	0.23	1.08	0.69
02129	III	0.21	0.00	0.21	0.00	1.25

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

- MARTHA HANSCOM
- BEAR CREEK SCHOOL

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NE 95TH ST BETWEEN AVONDALE RD AND 196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

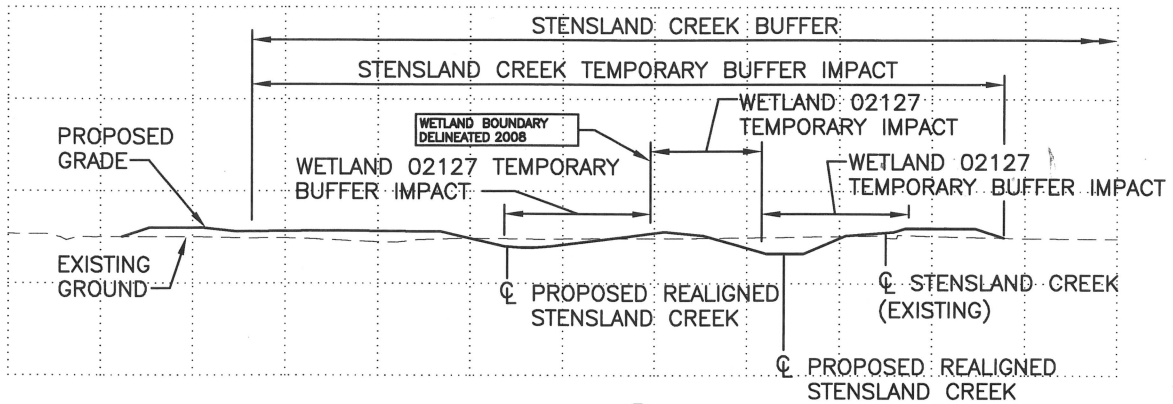
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**STATE:** WA

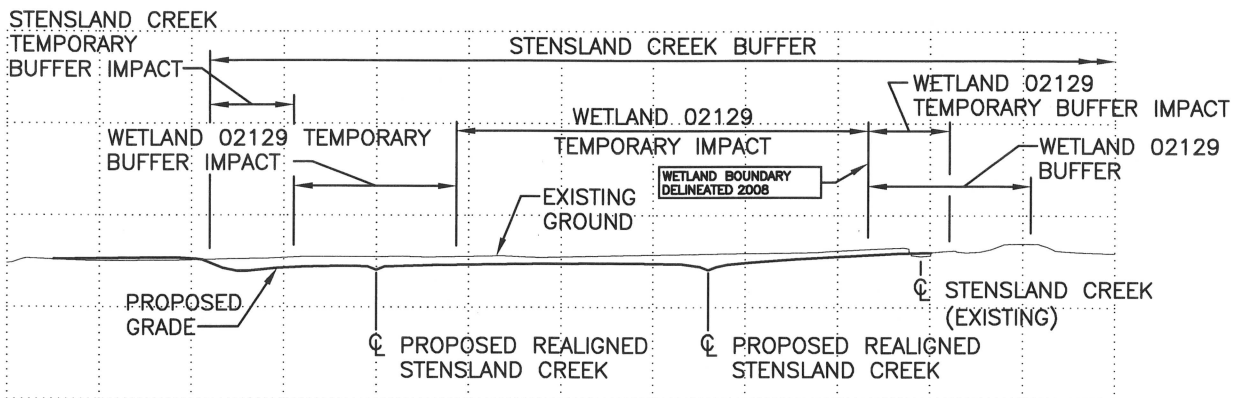
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**DATE:** JANUARY 2009

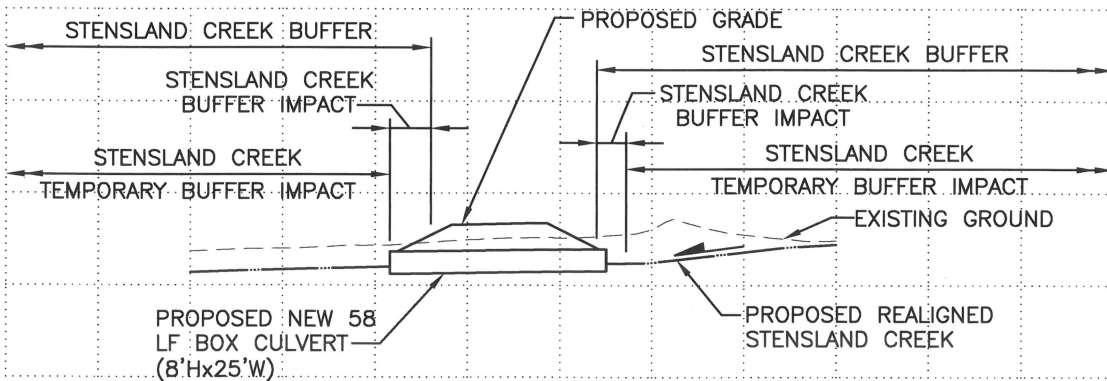
COE Ref. No.  
NWS-2008-350



**SECTION 14**  
SHT15



**SECTION 15**  
SHT16



**LEGEND**

← BUFFER CONTINUED

**SECTION 16**  
SHT16

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

- MARTHA HANSCOM
- BEAR CREEK SCHOOL

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NE 95TH ST BETWEEN AVONDALE  
RD AND 196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

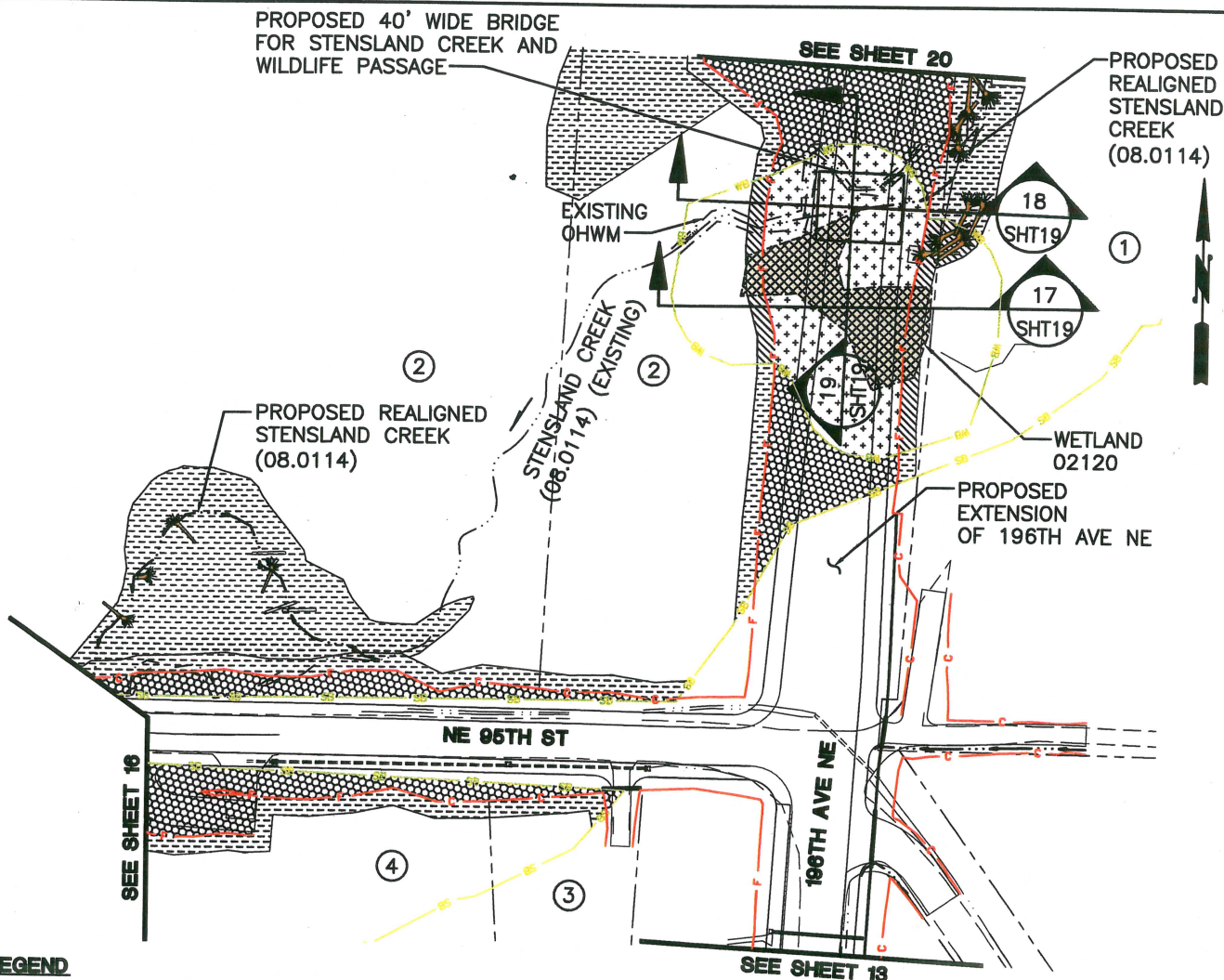
**STATE:** WA

**SHEET** 17 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- PROPOSED DITCH/TRIBUTARY
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PROPOSED STORM DRAIN
- PROPERTY OWNERSHIP
- LARGE WOODY DEBRIS (LWD)

## **WETLAND VEGETATION PRESENT:**

BIG-LEAF MAPLE, WESTERN RED CEDAR, SALMONBERRY, SWORD FERN, REED CANARYGRASS

0 50 100  
SCALE IN FEET

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02120	IV	0.11	0.11	0.00	0.23	0.05

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. WILLIAM ROCKENBECK
2. JAMES REID
3. CONSTANTIN BADEA
4. BEAR CREEK SCHOOL

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**  
196TH AVE NE AT NE 95TH ST

**PROPOSED:** ROADWAY IMPROVEMENTS

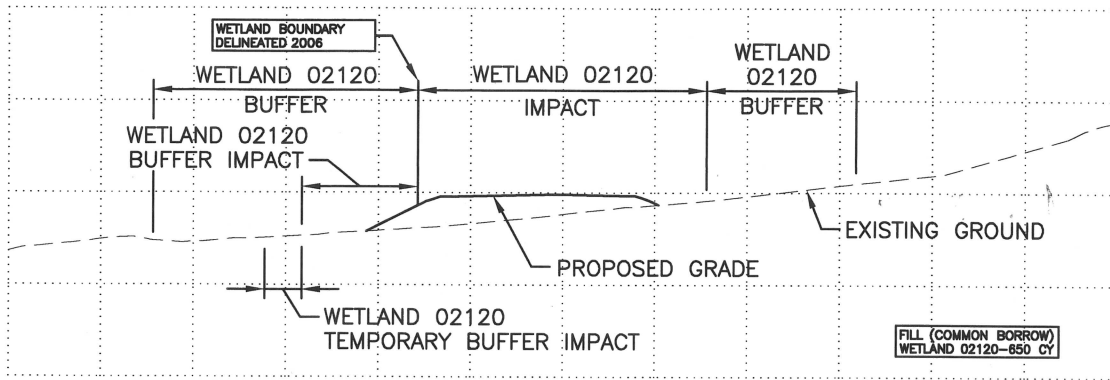
**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

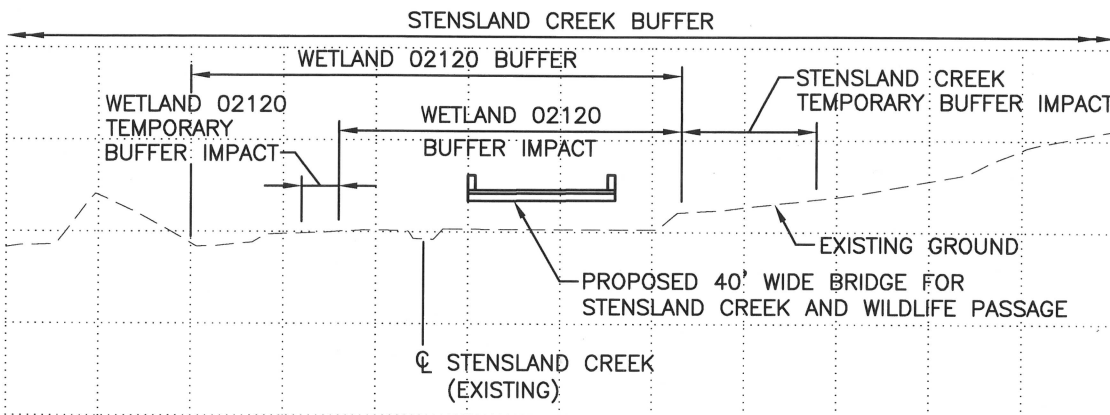
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**DATE:** JANUARY 2009

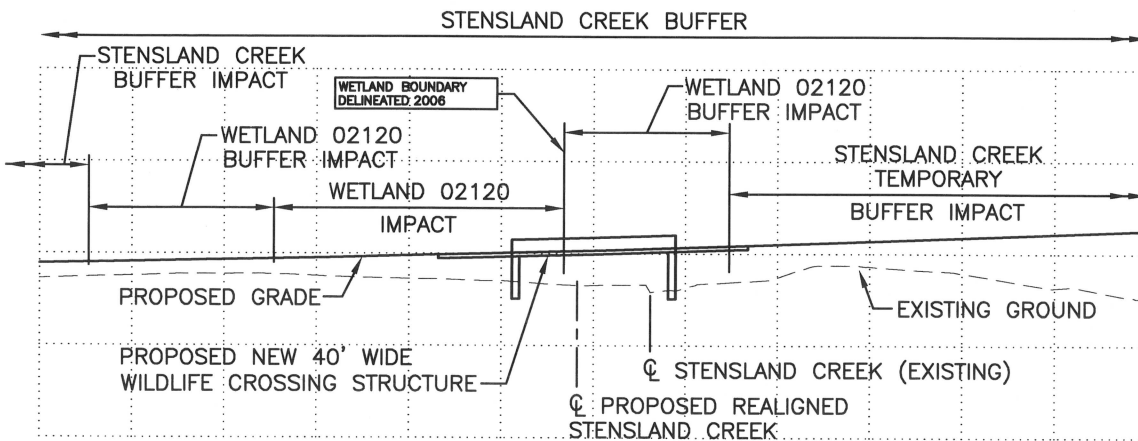
COE Ref. No.  
NWS-2008-350



**SECTION 17**  
SHT18



**SECTION 18**  
SHT18



**SECTION 19**  
SHT18

**LEGEND**

← BUFFER CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. WILLIAM ROCKENBECK
2. JAMES REID 3. CONSTANTIN BADEA 4. BEAR CREEK SCHOOL

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE AT NE 95TH ST

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

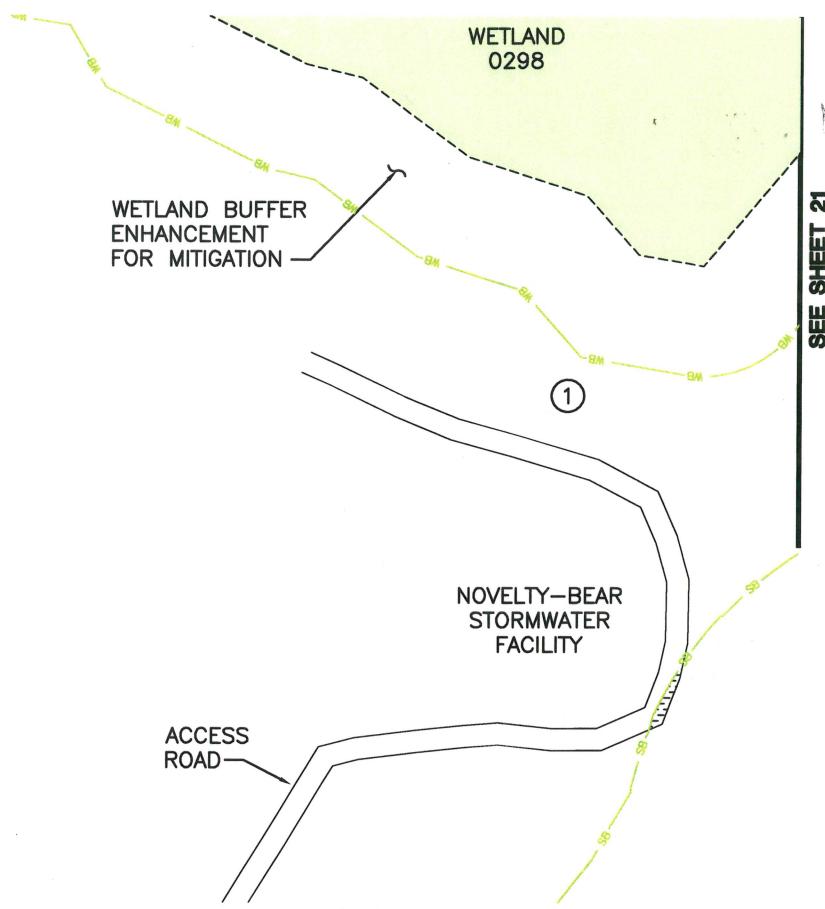
**COUNTY:** KING

**STATE:** WA

**SHEET** 19 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



# **LEGEND**

- WETLAND AREA
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- ① PROPERTY OWNERSHIP

## **WETLAND VEGETATION PRESENT:**

BIG-LEAF MAPLE, WESTERN RED CEDAR, SALMONBERRY, SWORD FERN, REED CANARYGRASS

TRIBUTARY IMPACTS				
TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

\* ISOLATED WETLAND

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
0298*	III	2.69	0.00	0.00	0.00	0.00

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. JAMES REID

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD EAST OF  
196TH AVE NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

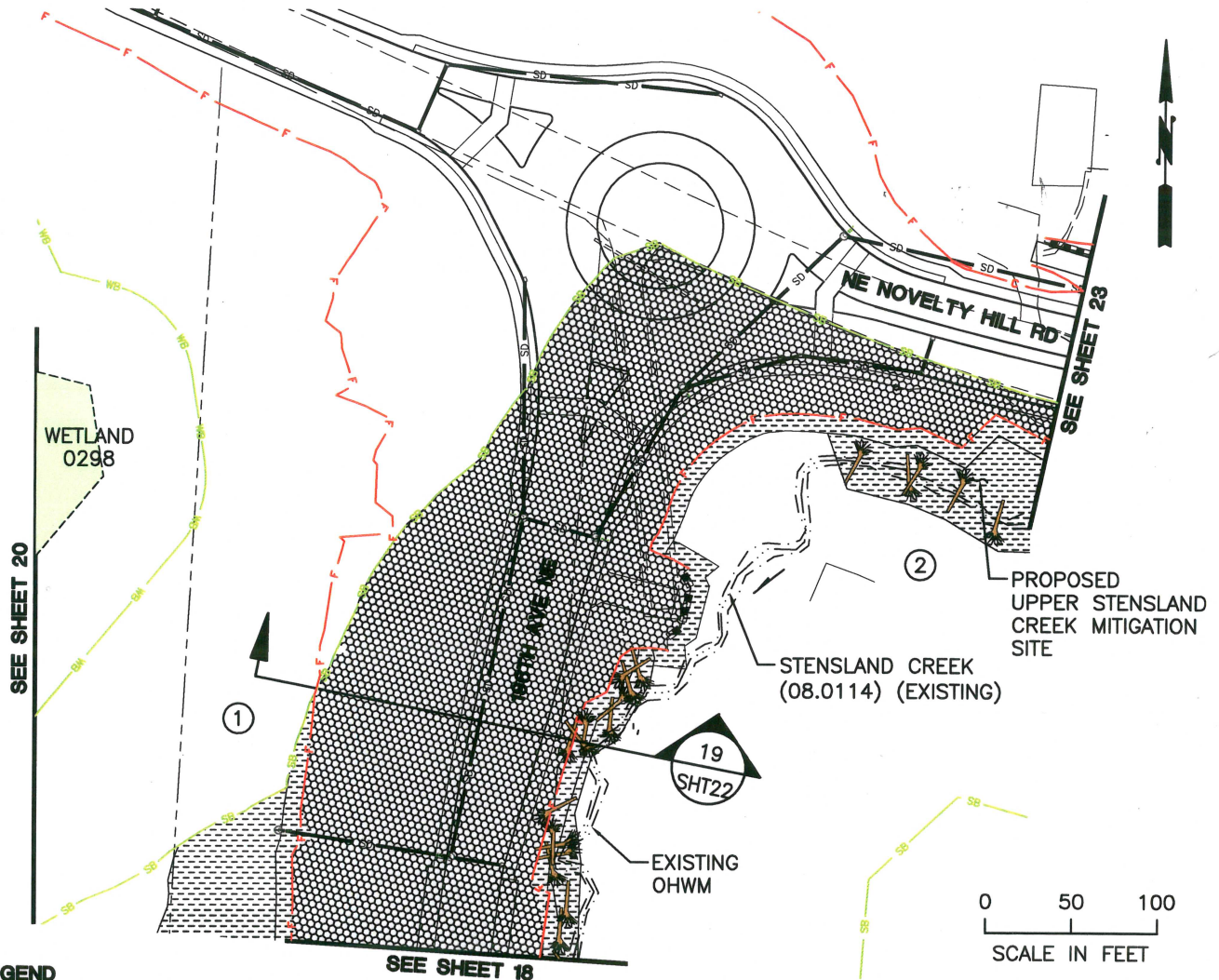
**STATE:** WA

**SHEET:** 20 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- F** PROPOSED FILL LINE
- C** PROPOSED CUT LINE
- SD** PROPOSED STORM DRAIN
- PROPOSED WALL
- 1 PROPERTY OWNERSHIP
- LARGE WOODY DEBRIS (LWD)

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. JAMES REID
2. WILLIAM ROCKENBECK

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE AT NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

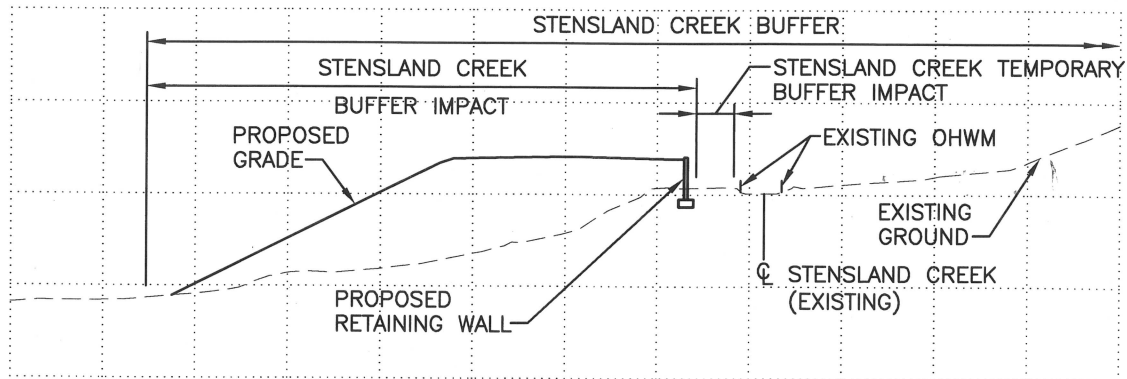
**COUNTY:** KING

**STATE:** WA

**SHEET** 21 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



**SECTION** 19  
SHT21

**LEGEND**

← BUFFER CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. JAMES REID
2. WILLIAM ROCKENBECK

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

196TH AVE NE AT NOVELTY HILL RD

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

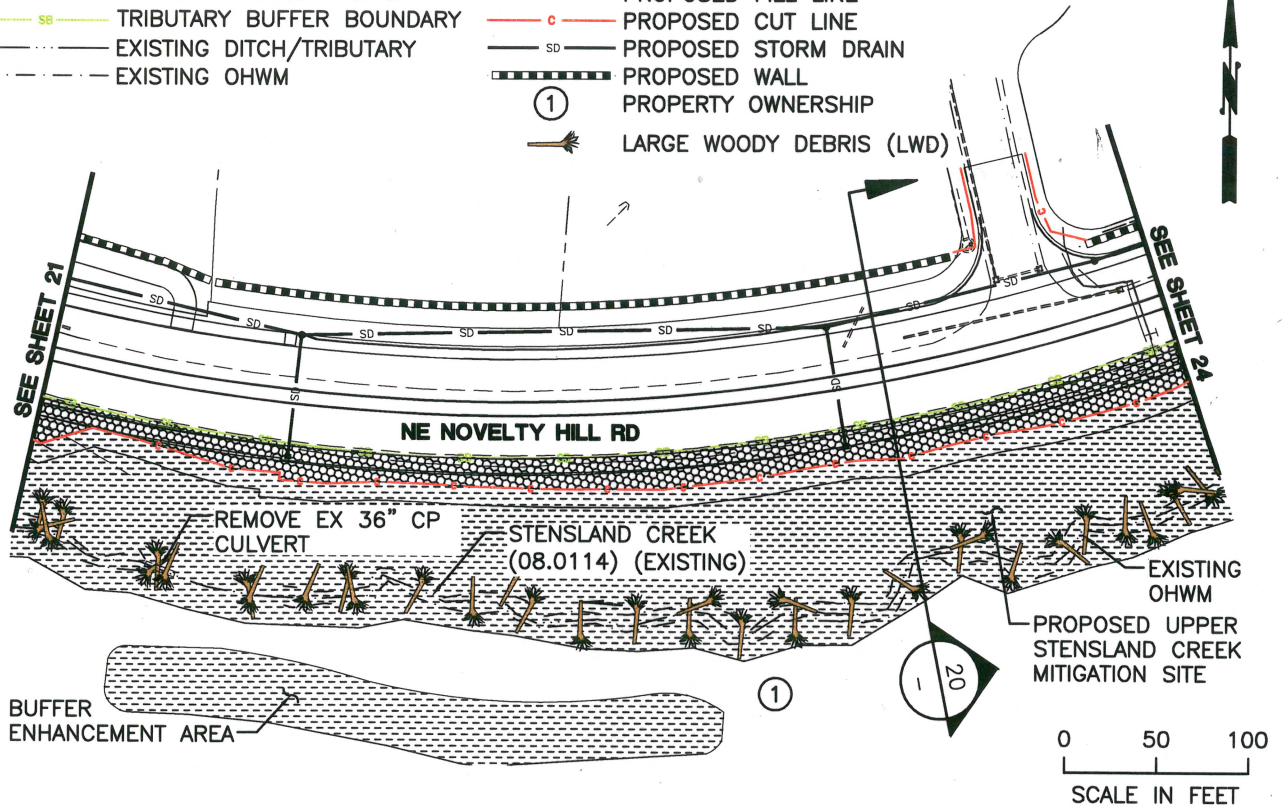
**SHEET** 22 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

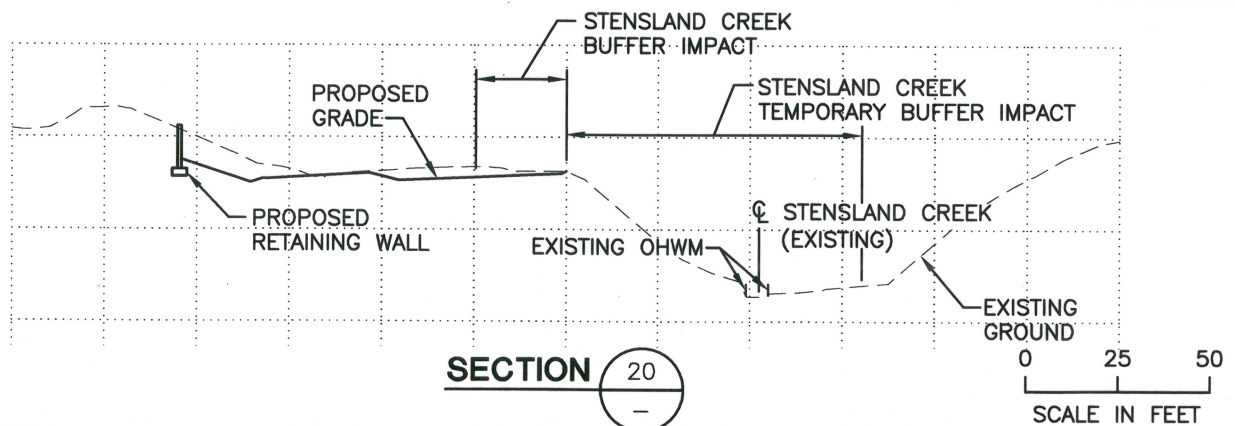
# **LEGEND**

- EXISTING PROPERTY LINE
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP
- LARGE WOODY DEBRIS (LWD)



**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

TRIBUTARY IMPACTS				
TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35



**PURPOSE:** INCREASE CAPACITY  
**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**  
 1. RODERICK REVOCABLE TRUST

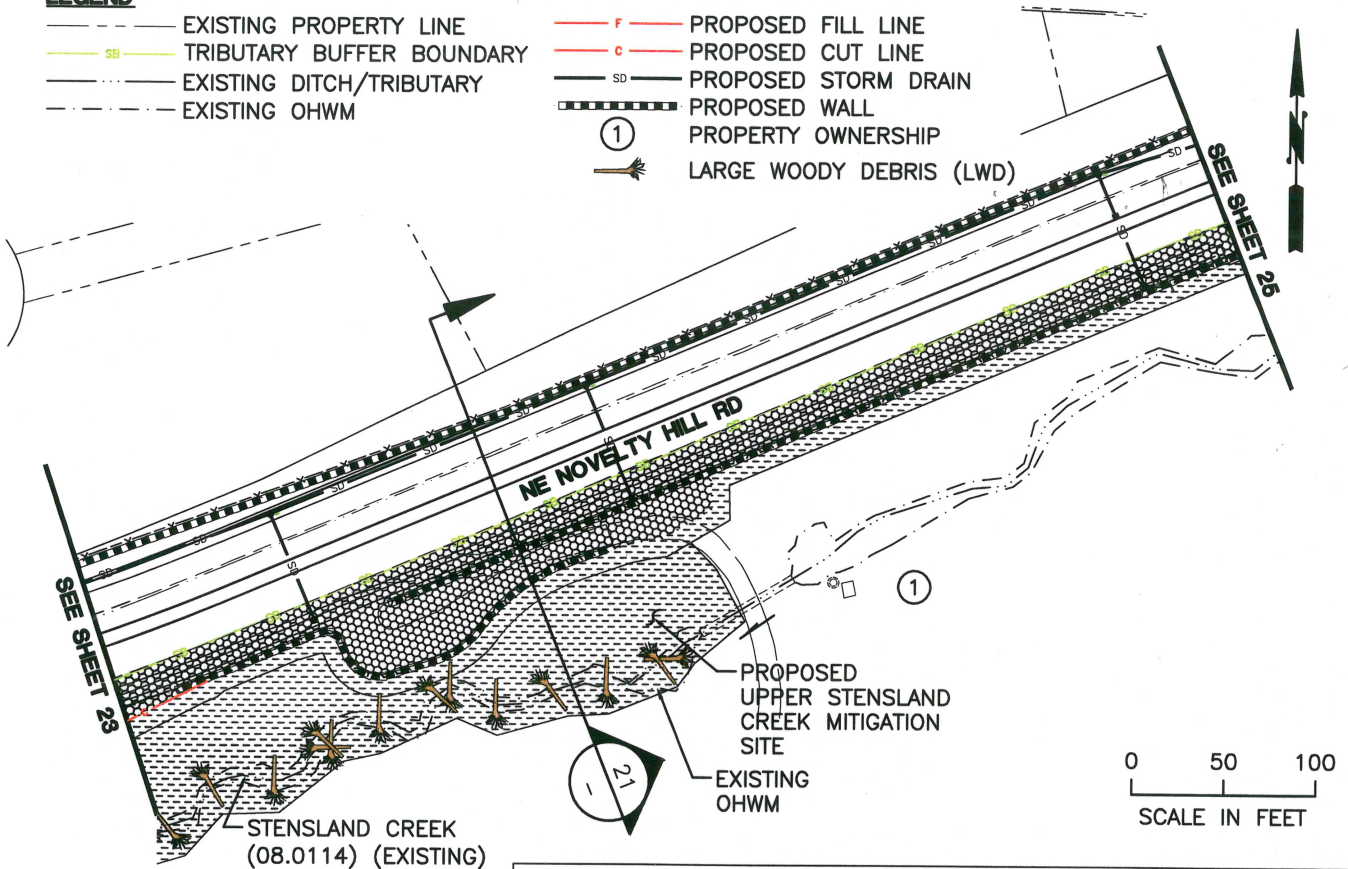
**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:**  
**SITE LOCATION ADDRESS:**  
 NOVELTY HILL RD BETWEEN  
 196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS  
**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA  
**SHEET** 23 OF 45  
**DATE:** JANUARY 2009  
 COE Ref. No.  
 NWS-2008-350



# **LEGEND**

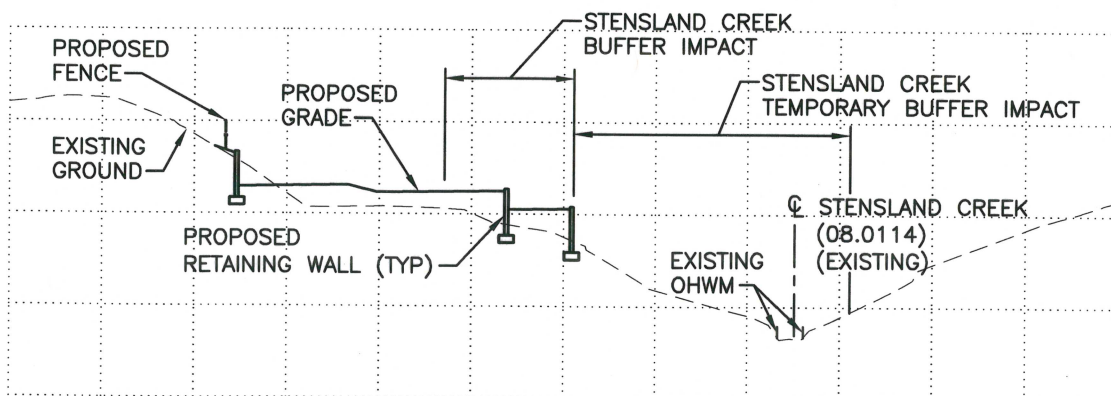
- EXISTING PROPERTY LINE
- SB — TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- F — PROPOSED FILL LINE
- C — PROPOSED CUT LINE
- SD — PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP
- LARGE WOODY DEBRIS (LWD)



**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35



**SECTION 21**

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. RODERICK REVOCABLE TRUST

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

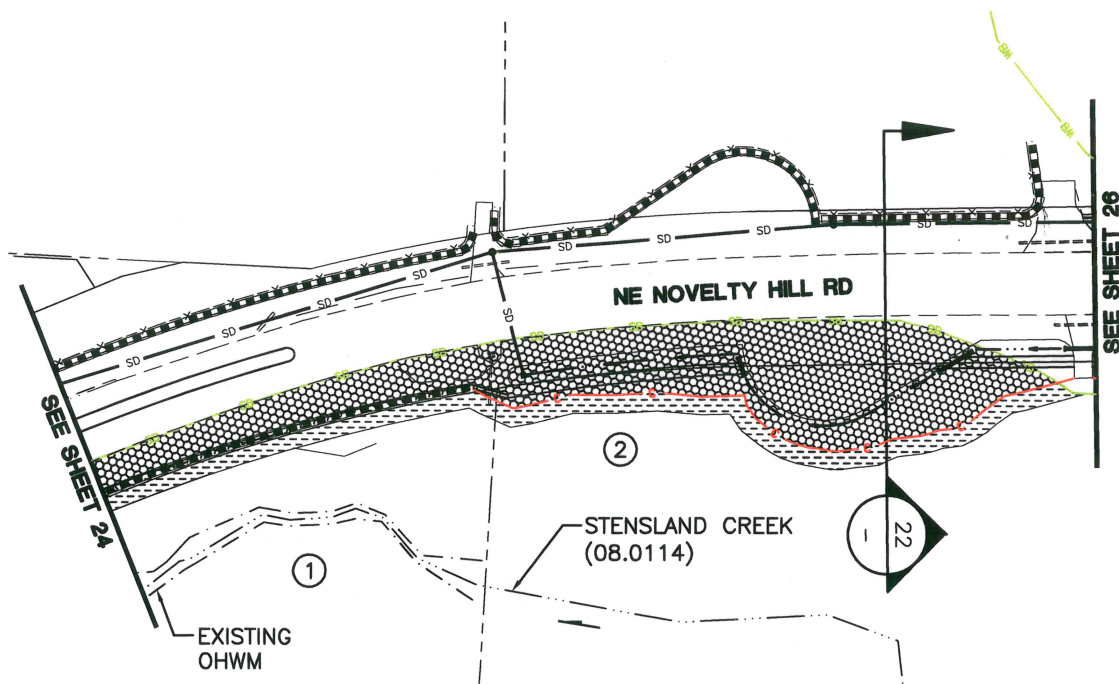
**COUNTY:** KING

**STATE:** WA

**SHEET 24 OF 45**

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

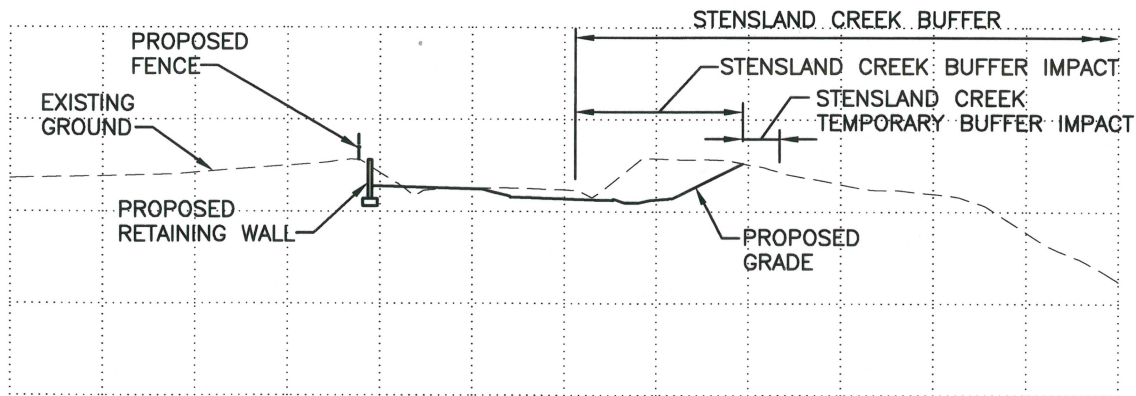


# **LEGEND**

- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- EXISTING OHWM
- PROPOSED DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

TRIBUTARY IMPACTS				
TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
STENSLAND CREEK (08.0114)	F	290	3.31	7.35



# **LEGEND**

--- BUFFER CONTINUED

## **SECTION**

22

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. RODERICK REVOCABLE TRUST
2. ARNE & SUNDAY STRAY

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

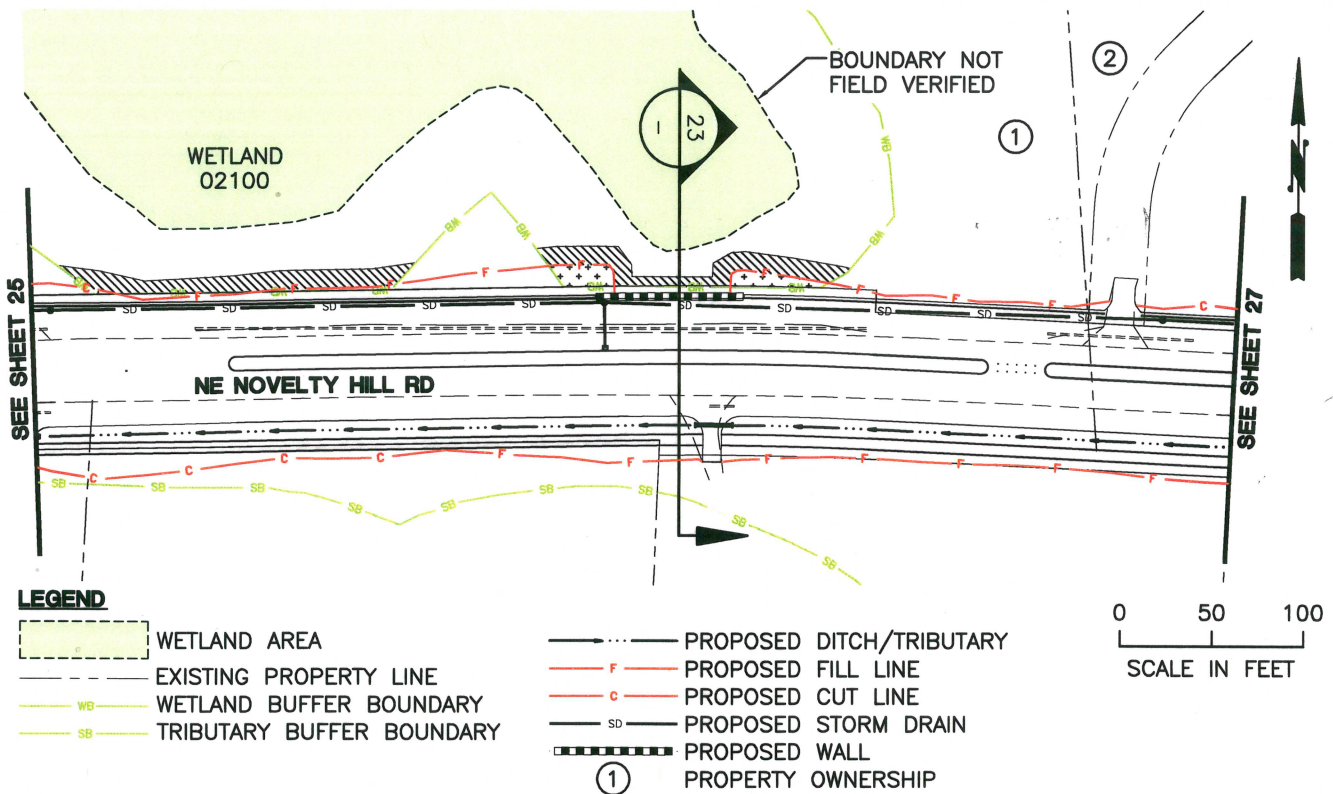
**STATE:** WA

**SHEET** 25 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





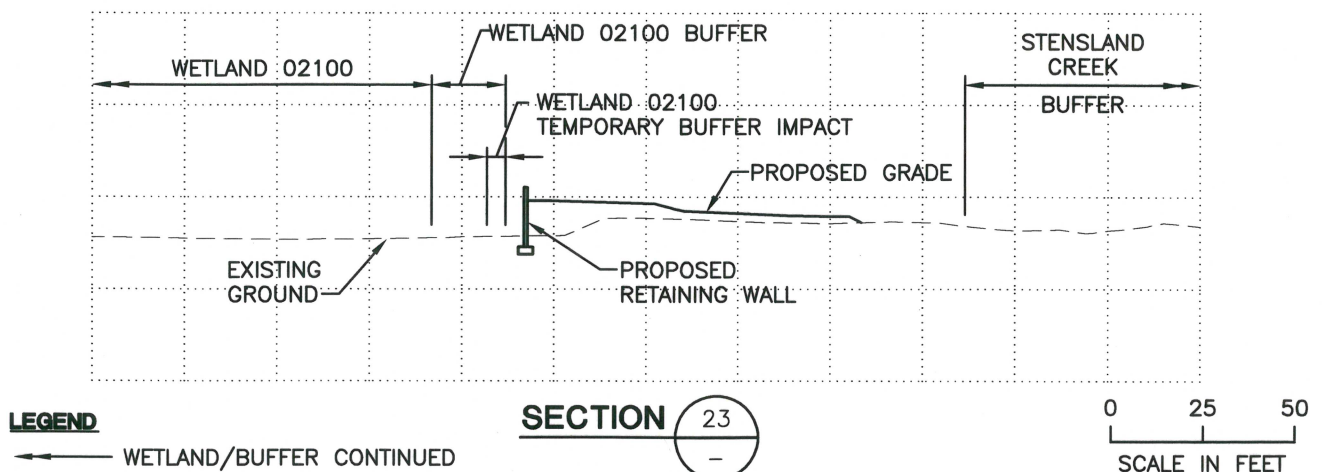
**WETLAND VEGETATION PRESENT:**

SOFTRUSH, TALL BUTTERCUP, REED CANARY GRASS, COLONIAL BENTGRASS, VELVET-GRASS, AND DANDELION

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

**WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02100	IV	0.92	0.00	0.00	0.02	0.08



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

- NOVELTY HILL FARMS
- GEORGE CODDINGTON

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

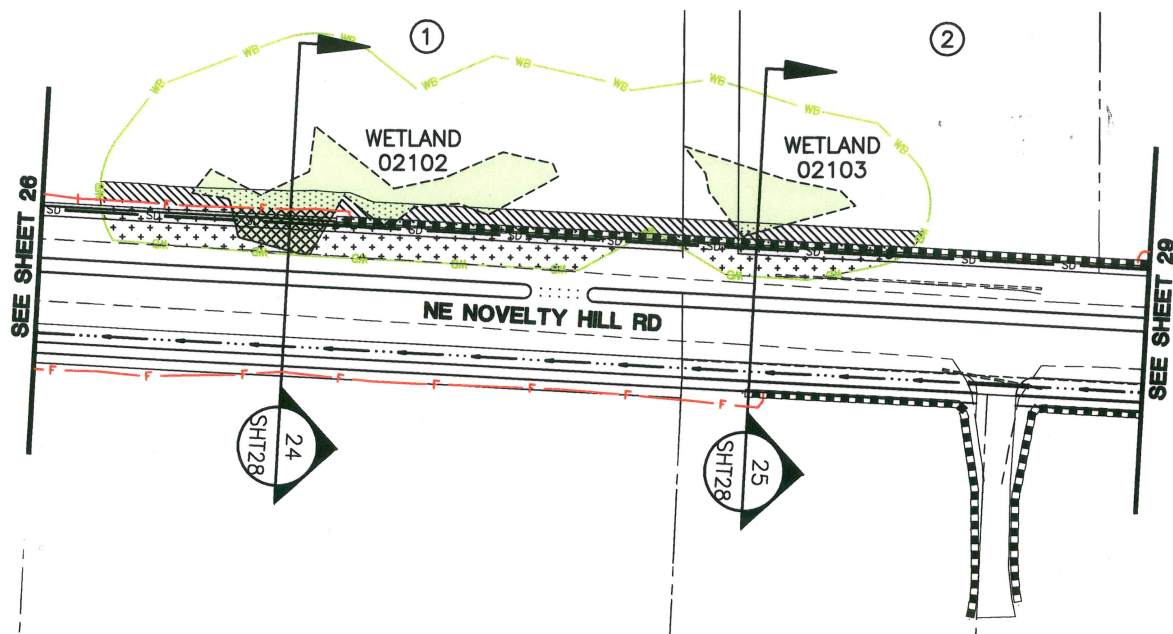
**STATE:** WA

**SHEET** 26 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





#### LEGEND

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- PROPOSED DITCH/TRIBUTARY
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP

#### WETLAND VEGETATION PRESENT:

RED ALDER, VINE MAPLE, WESTERN RED CEDAR,  
BIG-LEAF MAPLE, BITTERSWEET NIGHTSHADE,  
TALL MANNA GRASS, SWORD FERN,  
SALMONBERRY

0 50 100  
SCALE IN FEET

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02102	II	0.11	0.02	0.02	0.12	0.05
02103	III	0.04	0.00	0.01	0.04	0.03

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. GEORGINA SIERRA
2. LEROY & VERA OLSON

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

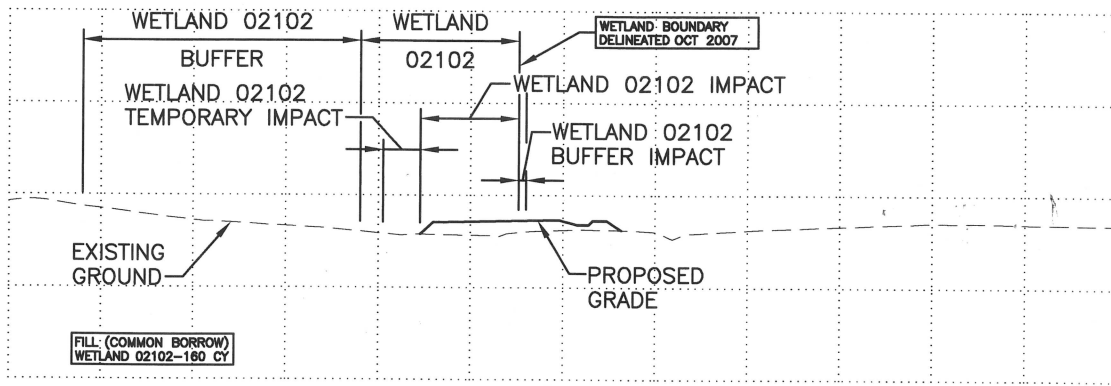
**COUNTY:** KING

**STATE:** WA

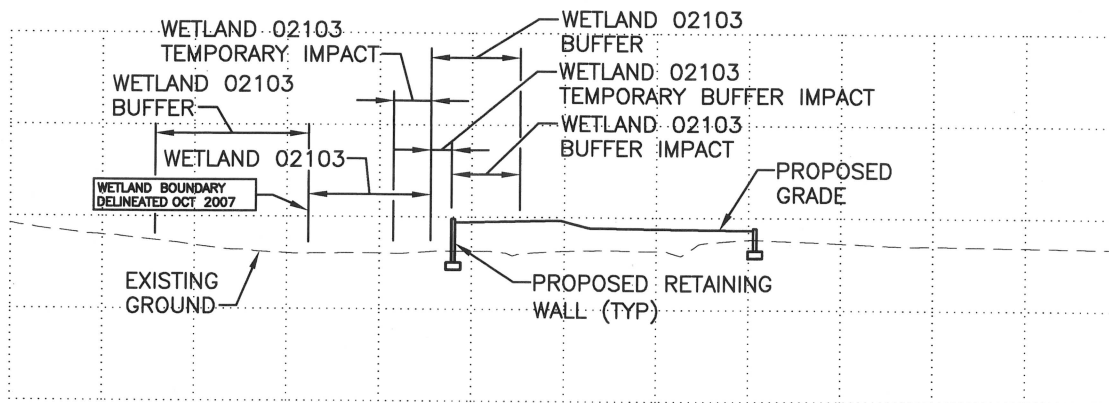
**SHEET** 27 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



**SECTION 24**  
SHT27



**SECTION 25**  
SHT27

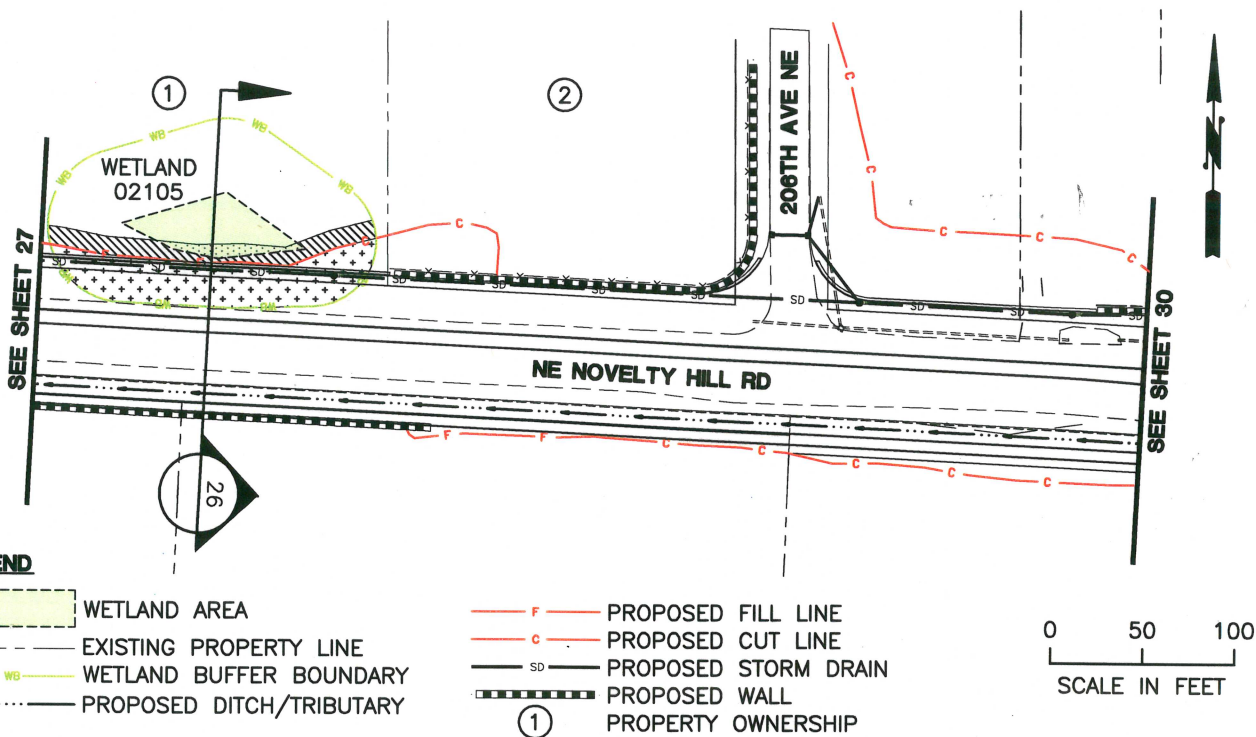
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SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY  
**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**  
 1. GEORGINA SIERRA  
 2. LEROY & VERA OLSON

**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:**  
**SITE LOCATION ADDRESS:**  
 NOVELTY HILL RD BETWEEN  
 196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS  
**NEAR:** REDMOND  
**COUNTY:** KING      **STATE:** WA  
**SHEET** 28 **OF** 45  
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

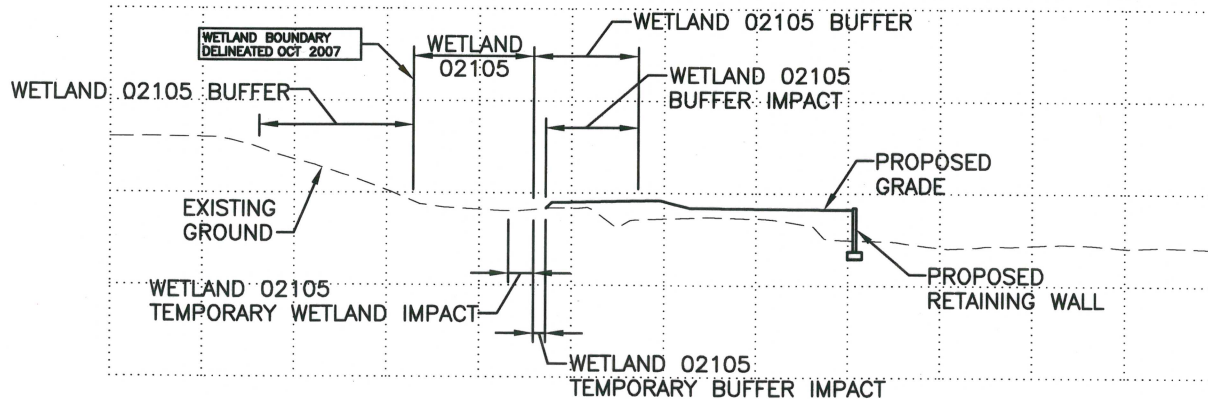


**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

**WETLAND VEGETATION PRESENT:**  
WATERPEPPER, RED ALDER

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02105	IV	0.04	0.00	0.01	0.10	0.03



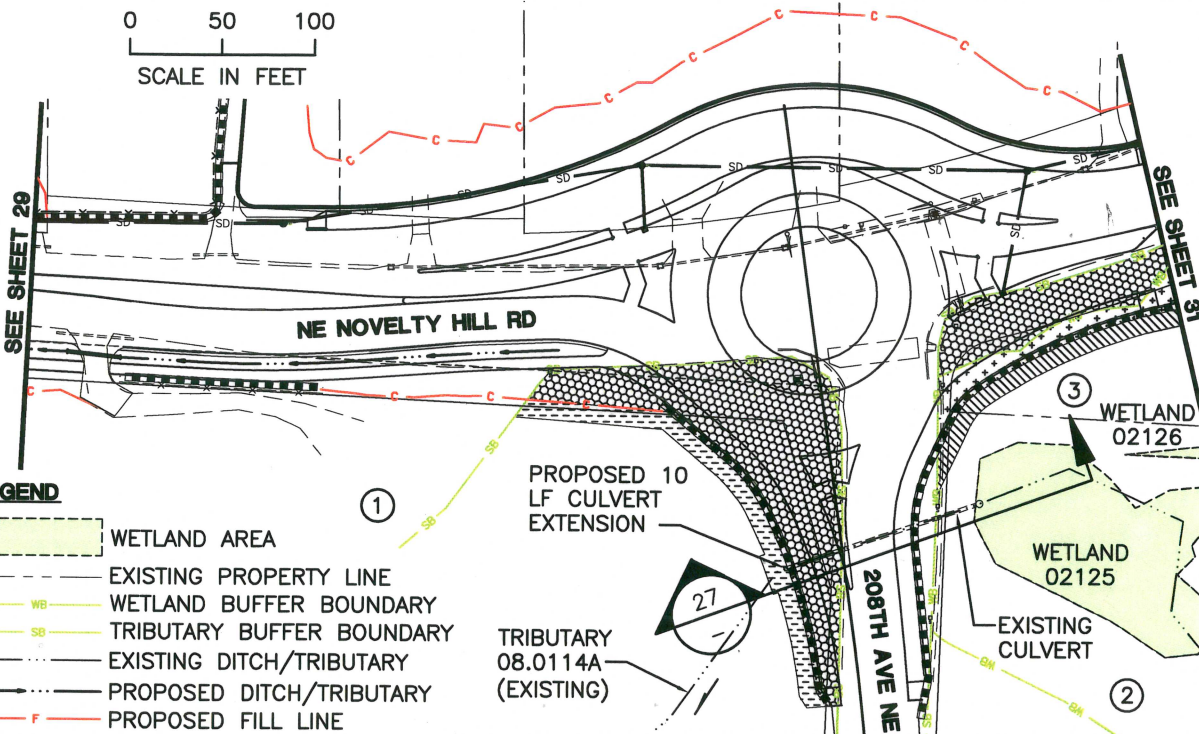
**PURPOSE:** INCREASE CAPACITY  
**DATUM:** (NAVD 83-91)  
**ADJACENT PROPERTY OWNERS:**  
1. FRANK CLAY JR.  
2. E. ANDREA SHADRACH

**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:**  
**SITE LOCATION ADDRESS:**  
NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS  
**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA  
**SHEET** 29 **OF** 45  
**DATE:** JANUARY 2009

COE Ref. No.  
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**LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- PROPOSED DITCH/TRIBUTARY
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP

**WETLAND VEGETATION PRESENT:**

WILLOW, REED CANARYGRASS, RED ALDER,  
WESTERN RED CEDAR

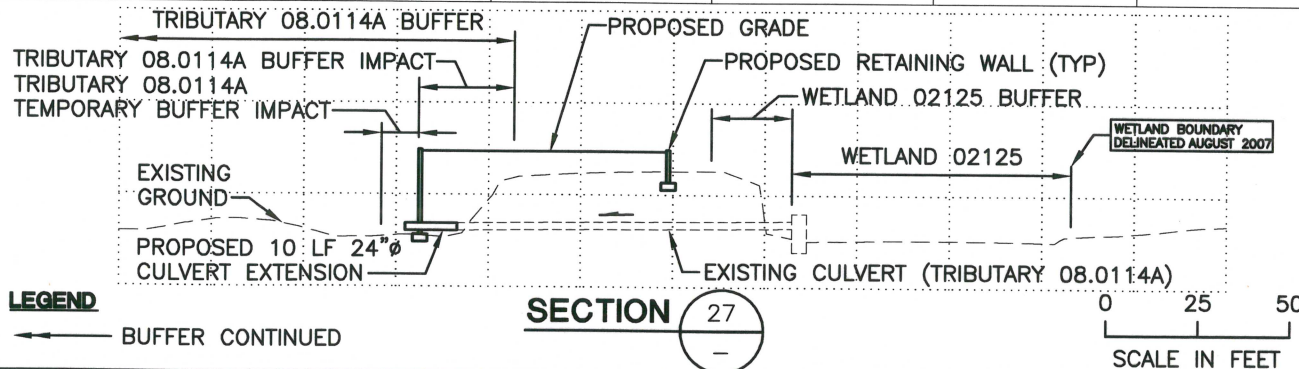
**TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0114A	F	33	0.31	0.06

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

**WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02125	IV	0.21	0.00	0.00	0.02	0.02
02126	III	0.30	0.00	0.01	0.21	0.07



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. RICHARD & SUSAN CARROLL
2. RAYMOND & JACKELINE KEASEY
3. JOHN & DEBORAH OFTEBRO

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

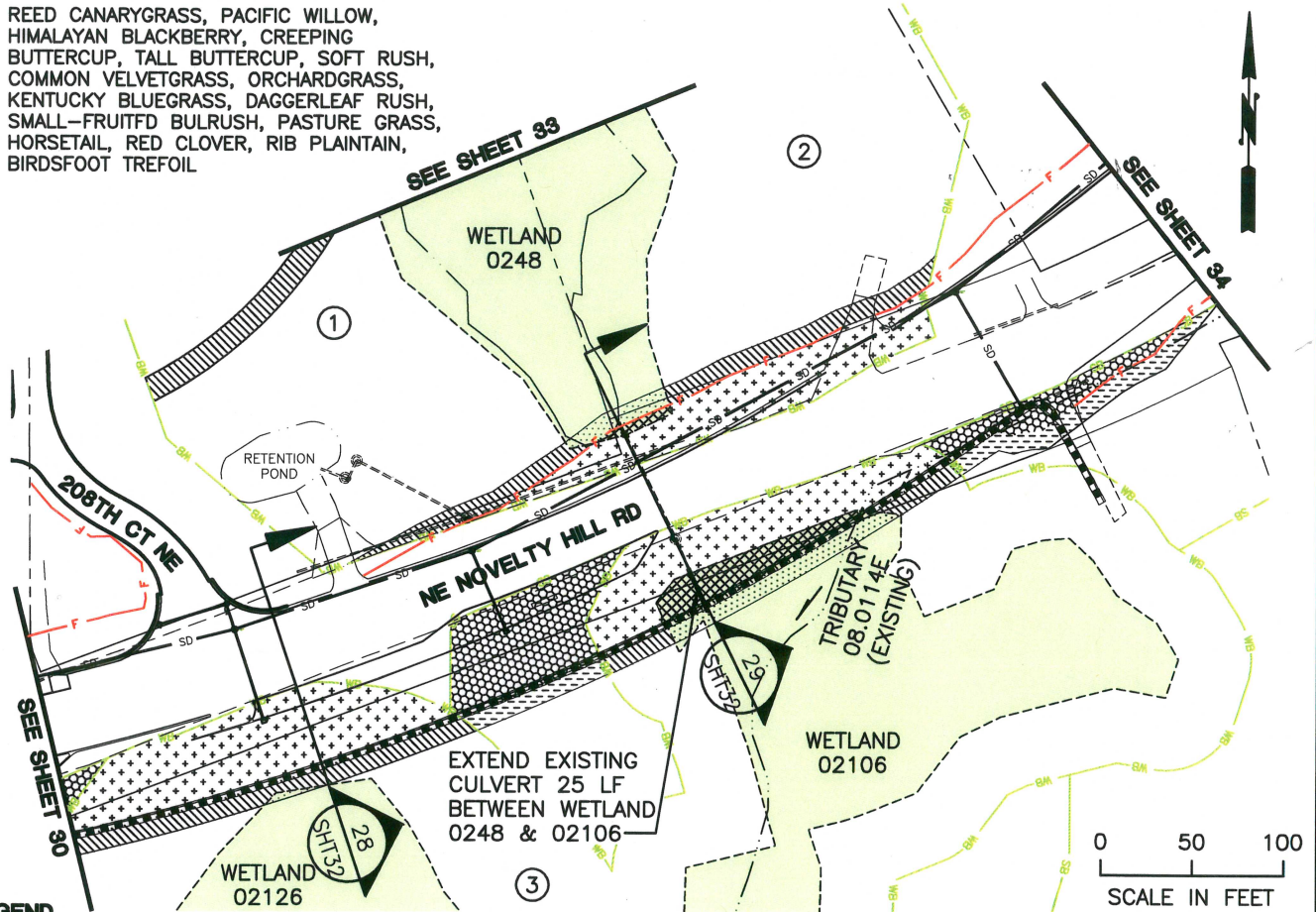
**SHEET** 30 **OF** 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

# **WETLAND VEGETATION PRESENT:**

REED CANARYGRASS, PACIFIC WILLOW,  
HIMALAYAN BLACKBERRY, CREEPING  
BUTTERCUP, TALL BUTTERCUP, SOFT RUSH,  
COMMON VELVETGRASS, ORCHARDGRASS,  
KENTUCKY BLUEGRASS, DAGGERLEAF RUSH,  
SMALL-FRUITED BULRUSH, PASTURE GRASS,  
HORSETAIL, RED CLOVER, RIB PLANTAIN,  
BIRDSFOOT TREFOIL



## **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0114E	N	192	0.54	0.10

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
0248	II	0.58	0.01	0.25	0.13	0.71
02106	IV	0.73	0.04	0.03	0.14	0.02
02126	III	0.30	0.00	0.01	0.21	0.07

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. KING COUNTY
2. GORDON & JOYCE TREPUS
3. JOHN & DEBORAH OFTEBRO

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

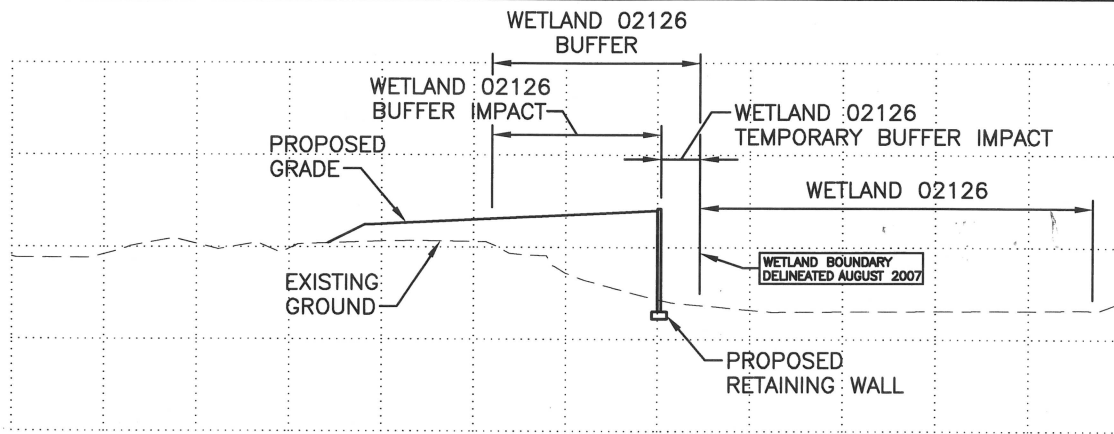
**STATE:** WA

**SHEET:** 31 OF 45

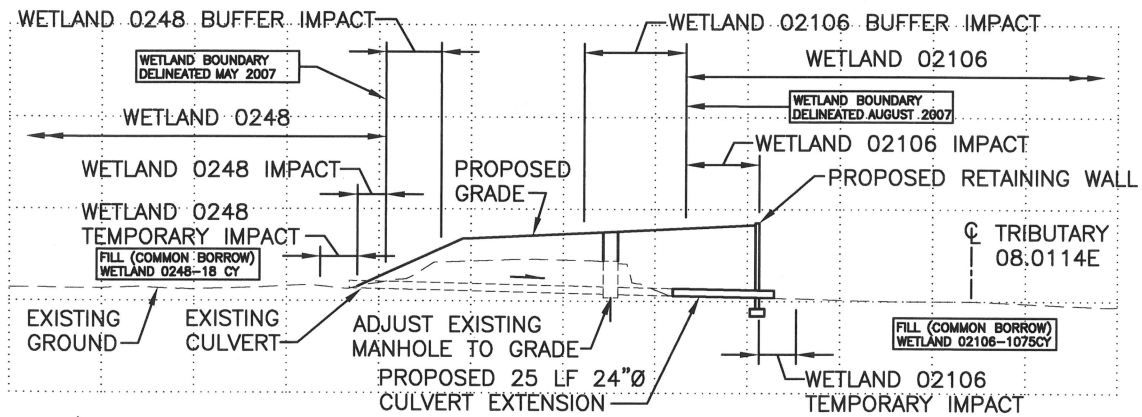
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





**SECTION 28**  
SHT31



**SECTION 29**  
SHT31

**LEGEND**

← WETLAND CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. KING COUNTY
2. GORDON & JOYCE TREPUS
3. JOHN & DEBORAH OFTEBRO

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

**SHEET** 32 OF 45

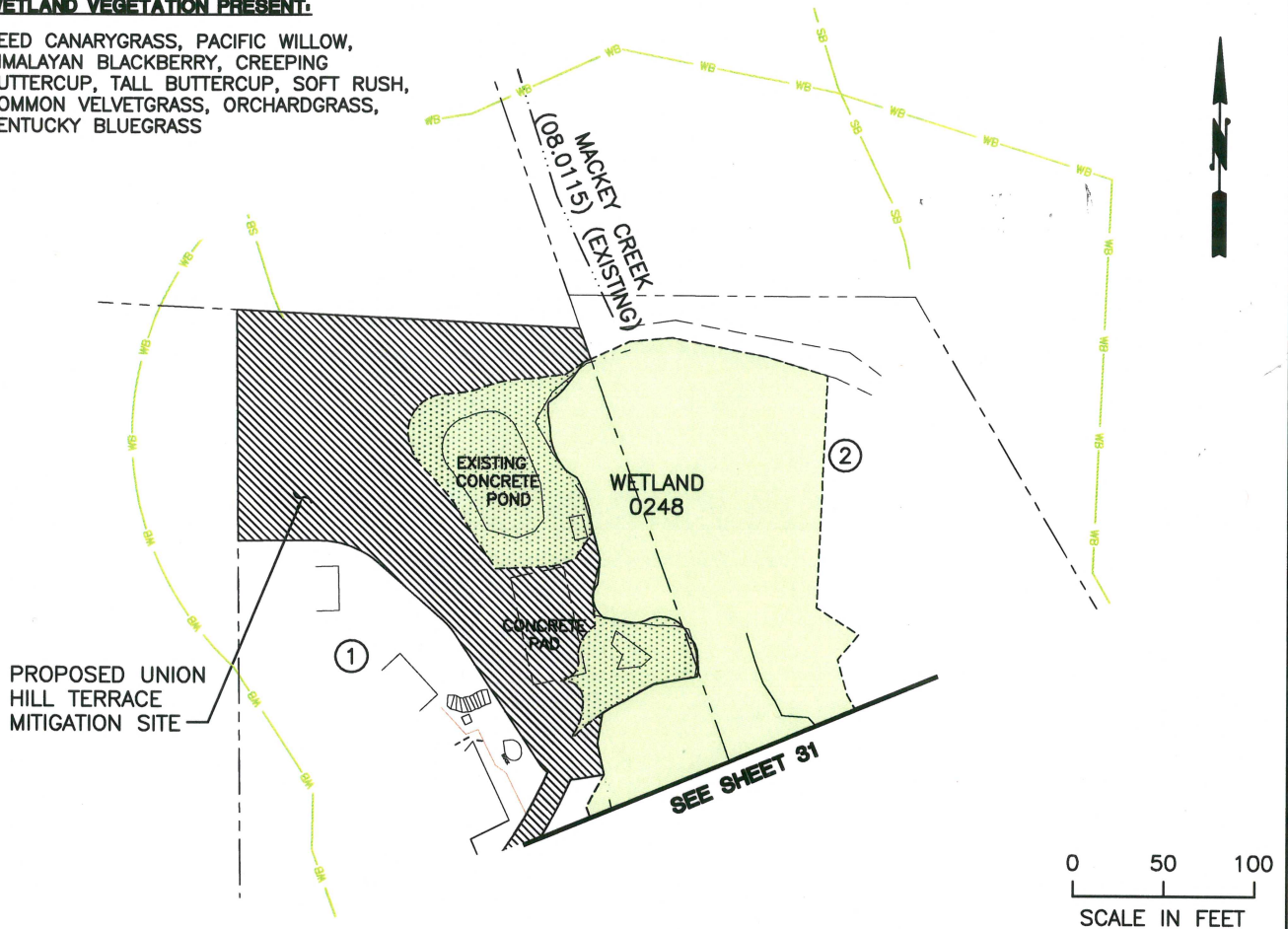
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



**WETLAND VEGETATION PRESENT:**

REED CANARYGRASS, PACIFIC WILLOW,  
HIMALAYAN BLACKBERRY, CREEPING  
BUTTERCUP, TALL BUTTERCUP, SOFT RUSH,  
COMMON VELVETGRASS, ORCHARDGRASS,  
KENTUCKY BLUEGRASS

**LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WETLAND BUFFER BOUNDARY
- TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- PROPERTY OWNERSHIP

**TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
MACKEY CREEK (08.0115)	F	0	0.00	0.00

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

**WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
0248	II	0.58	0.01	0.25	0.13	0.71

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. KING COUNTY
2. GORDON & JOYCE TREPUS

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

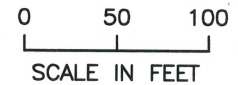
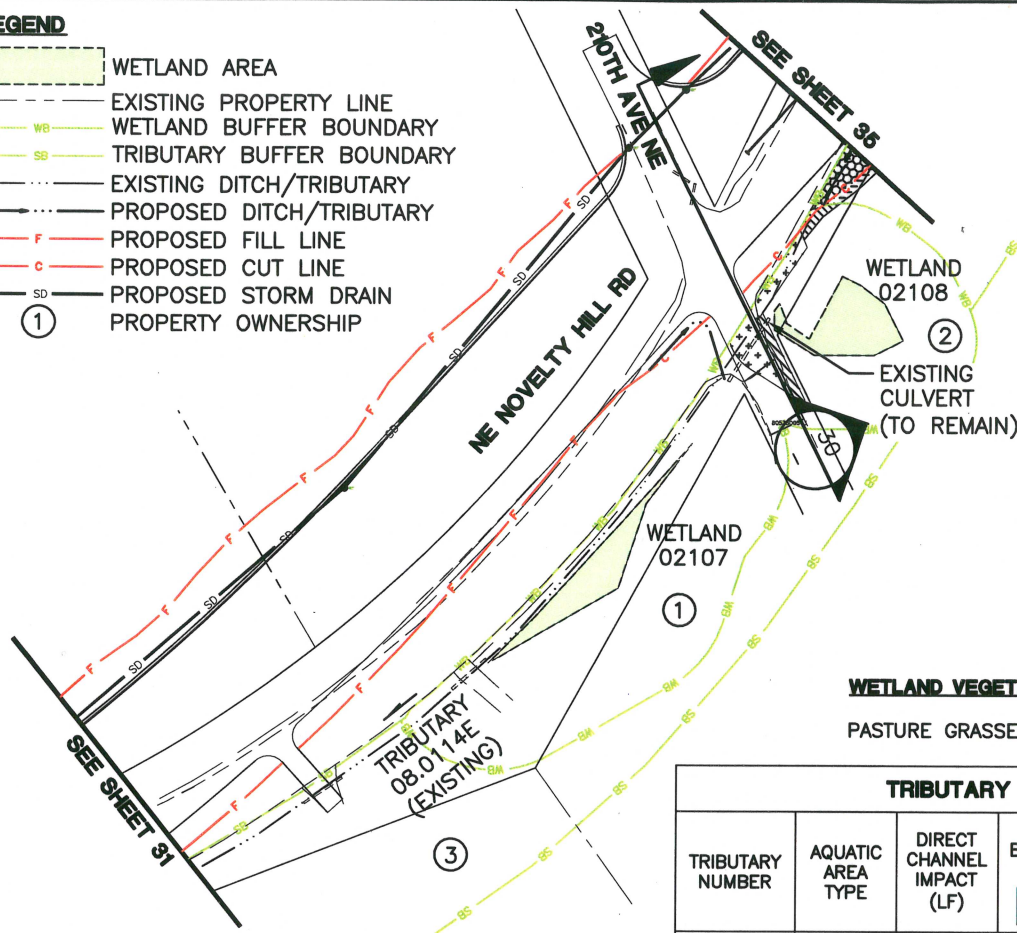
**SHEET:** 33 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

# **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- PROPOSED DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- 1 PROPERTY OWNERSHIP



## **WETLAND VEGETATION PRESENT:**

PASTURE GRASSES, HIMALAYAN BLACKBERRY

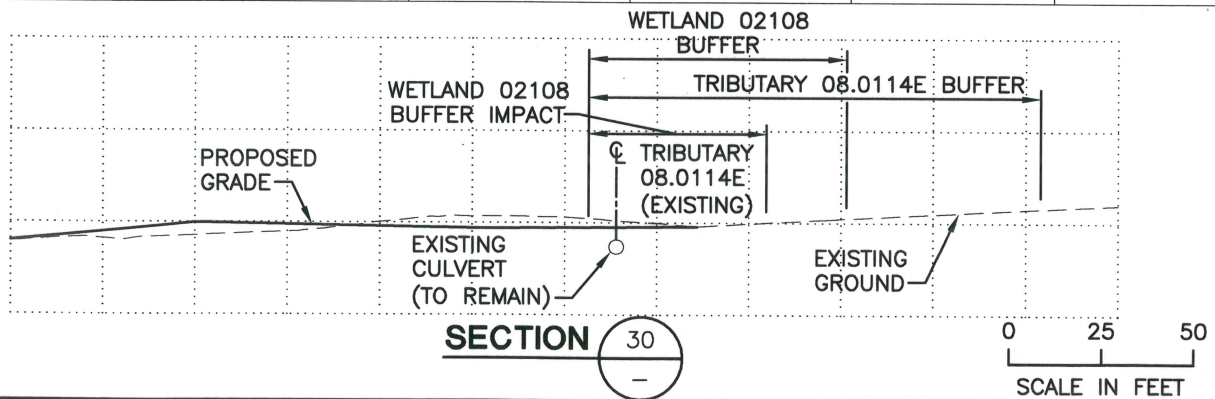
## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0114E	N	192	0.54	0.10

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02108	IV	0.04	0.00	0.00	0.02	0.01



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. JAMES GERRING
2. DAMIN CADY
3. KEITH & KORRIN KNUDSEN

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET** 34 OF 45

**DATE:** JANUARY 2009

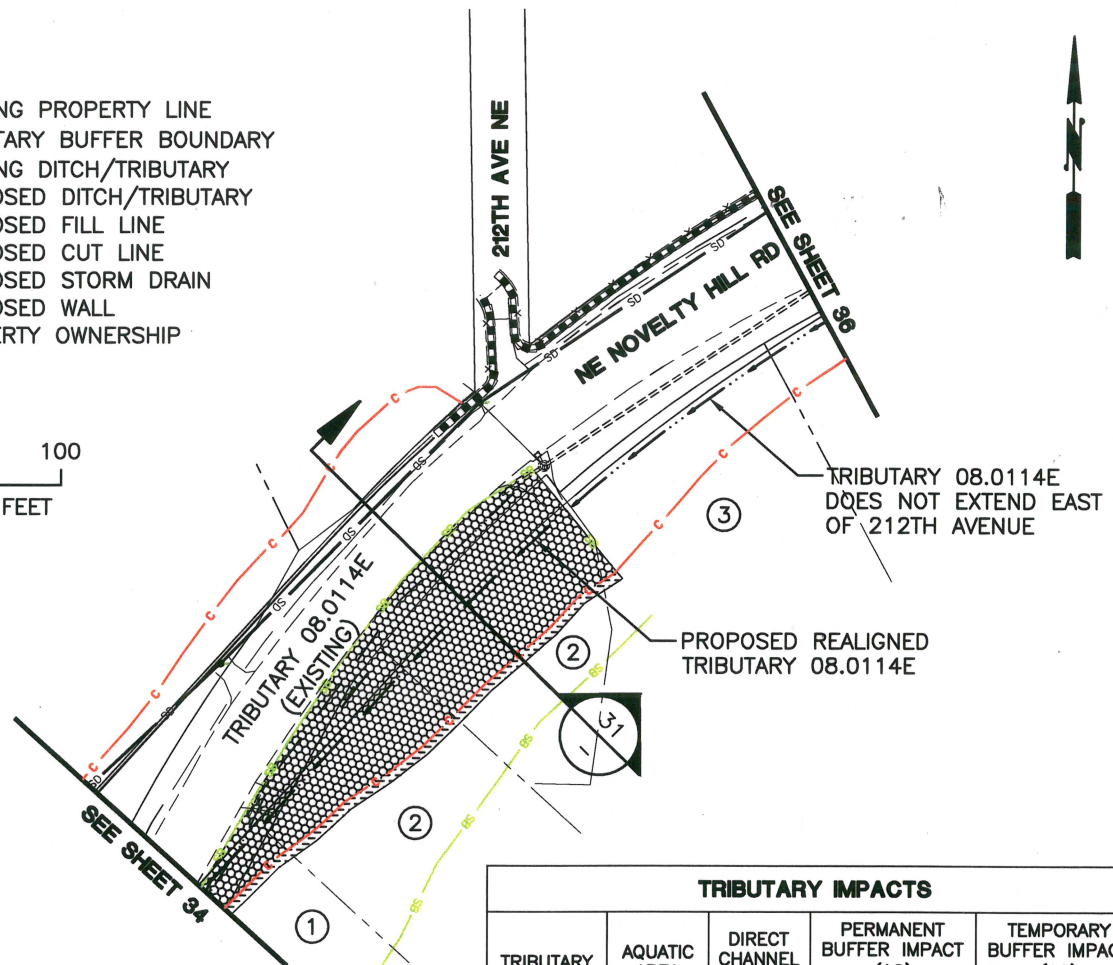
COE Ref. No.  
NWS-2008-350



# **LEGEND**

- EXISTING PROPERTY LINE
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- PROPOSED DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- ① PROPERTY OWNERSHIP

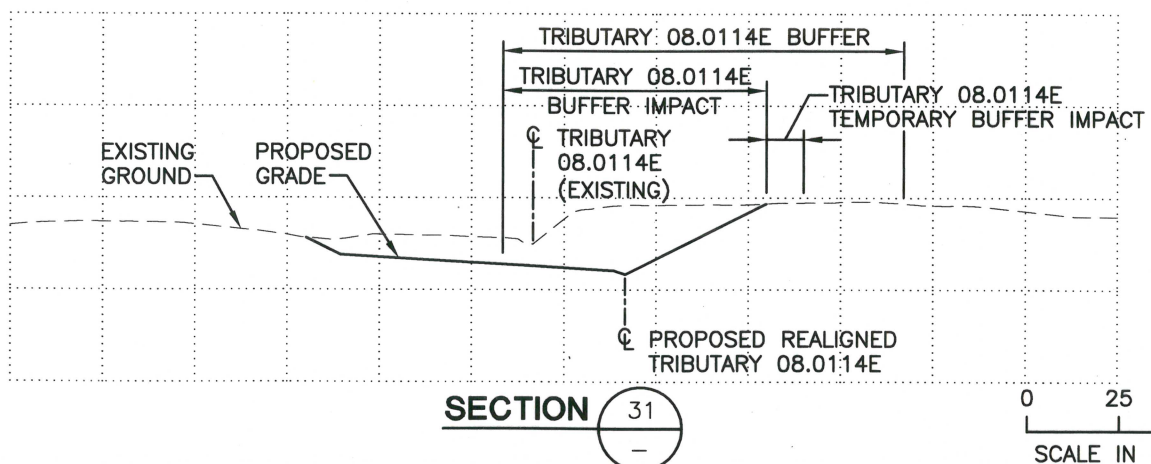
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SCALE IN FEET



## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0114E	N	192	0.54	0.10

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. RANDY & AMELYN BOBER
2. TOM & PETRINA BAIN
3. LESTER III & BONNIE ELLIS

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

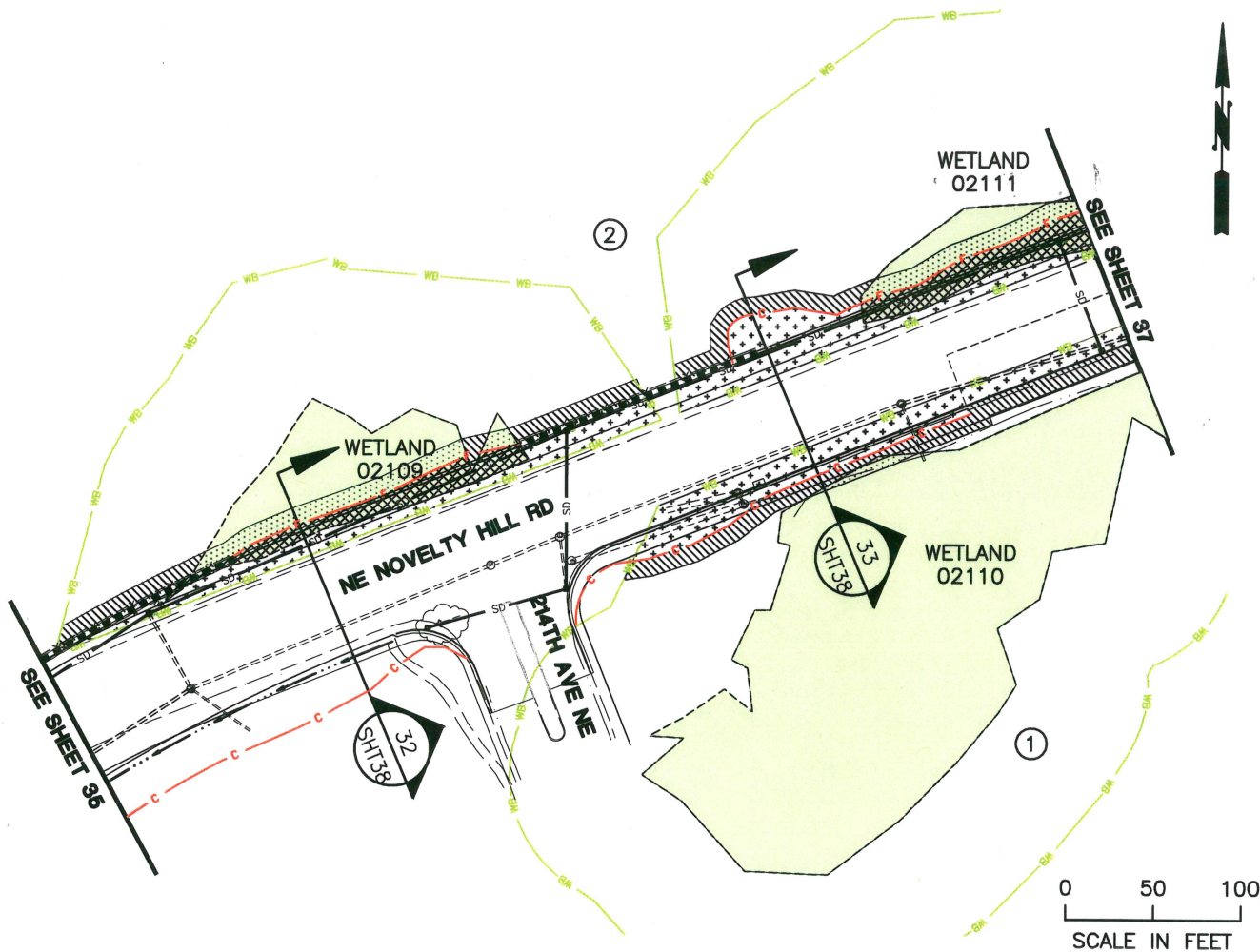
**STATE:** WA

**SHEET** 35 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





#### LEGEND

- WETLAND AREA
- WB WETLAND BUFFER BOUNDARY
- F PROPOSED DITCH/TRIBUTARY
- C PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- 1 PROPERTY OWNERSHIP

#### WETLAND VEGETATION PRESENT:

SALAL, TRAILING BLACKBERRY, FIELD HORSETAIL, SWORD FERN, SALMONBERRY, WESTERN RED CEDAR, WESTERN HEMLOCK, RED HUCKLEBERRY, RED ALDER, BIG-LEAF MAPLE, REED CANARYGRASS, SLOUGH SEDGE, BLACK COTTONWOOD, DOUGLAS SPIRAEA, BROADLEAF ARROWHEAD, SITKA WILLOW, SKUNK CABBAGE, SMALL DUCKWEED, SALAL, LADY FERN, WESTERN ST. JOHNSWORT

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02109	II	0.19	0.05	0.04	0.09	0.04
02110	II	1.54	0.00	0.01	0.20	0.15
02111	I	0.78	0.12	0.09	0.23	0.08

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNIDENTIFIED
2. LAKE WASH SCHOOL DISTRICT #414

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

**SHEET:** 36 OF 45

**DATE:** JANUARY 2009

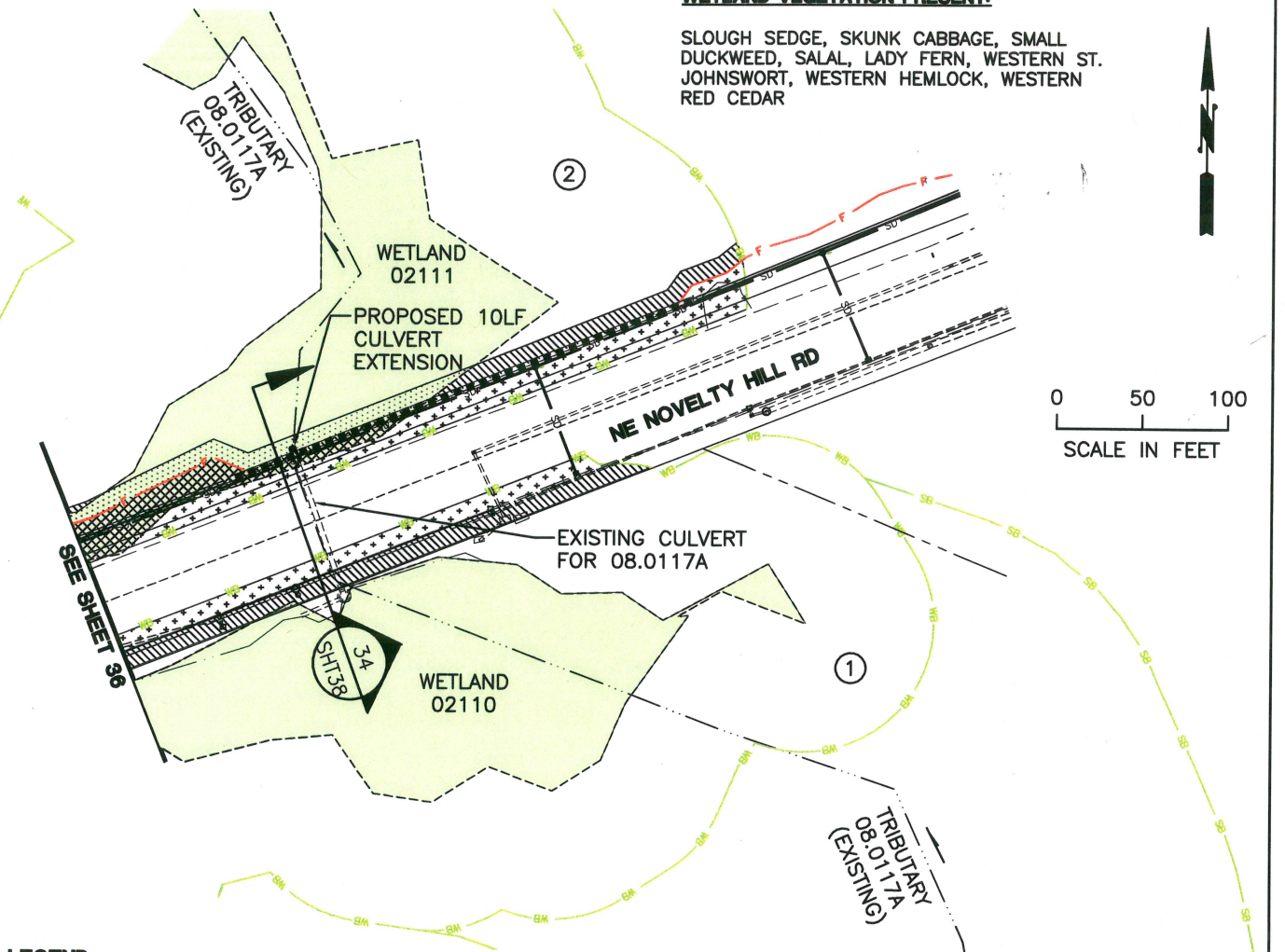
COE Ref. No.  
NWS-2008-350

# **WETLAND VEGETATION PRESENT:**

SLOUGH SEDGE, SKUNK CABBAGE, SMALL DUCKWEED, SALAL, LADY FERN, WESTERN ST. JOHNSWORT, WESTERN HEMLOCK, WESTERN RED CEDAR



0 50 100  
SCALE IN FEET



## **LEGEND**

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- SB TRIBUTARY BUFFER BOUNDARY
- EXISTING DITCH/TRIBUTARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- PROPOSED WALL
- PROPERTY OWNERSHIP

\*BUFFER IMPACT TO TRIBUTARY OVERLAP WITH WL 02110 AND WL 02111 AND ARE ACCOUNTED FOR IN WETLAND IMPACT TOTALS.

## **TRIBUTARY IMPACTS**

TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0117A	F	32	0.00*	0.00*

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

## **WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02110	II	1.54	0.00	0.01	0.20	0.15
02111	I	0.78	0.12	0.09	0.23	0.08

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNIDENTIFIED
2. LAKE WASH SCHOOL DISTRICT #414

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 235TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

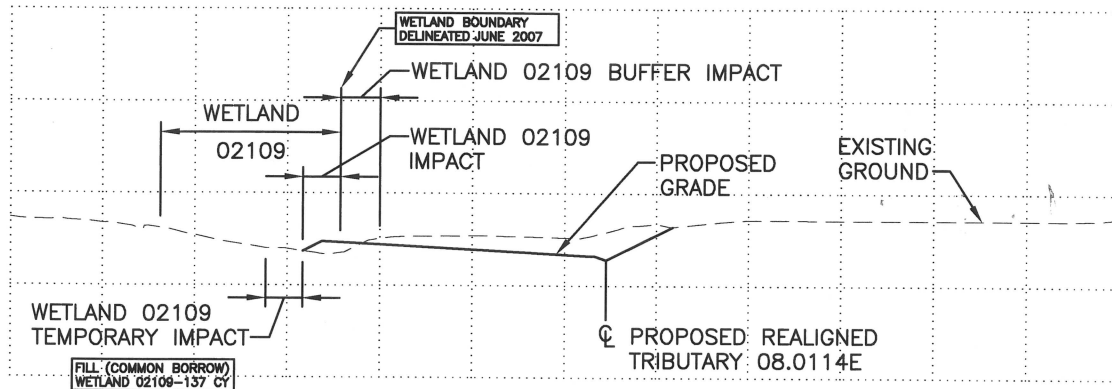
**COUNTY:** KING

**STATE:** WA

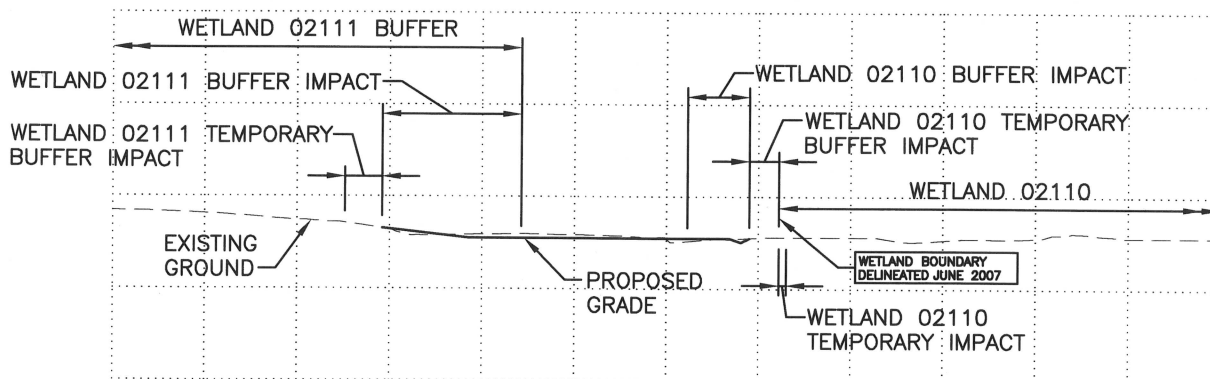
**SHEET:** 37 OF 45

**DATE:** JANUARY 2009

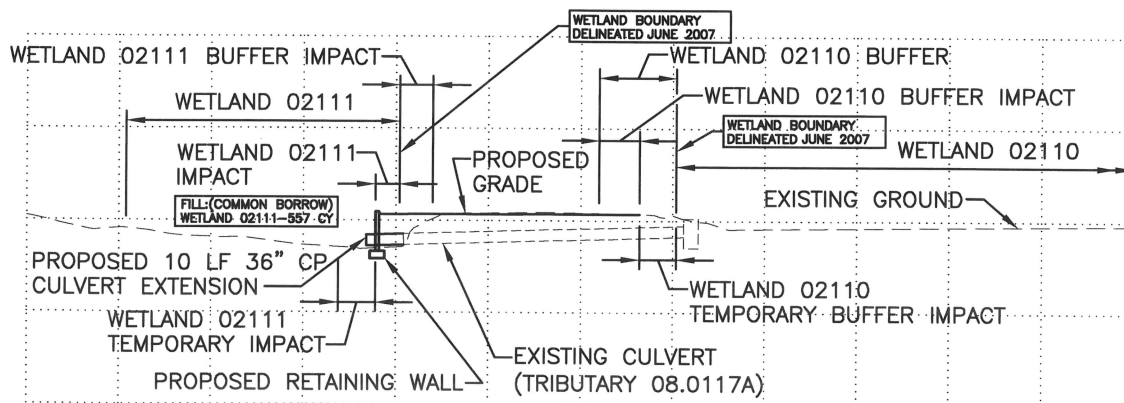
COE Ref. No.  
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**SECTION 32**  
SHT36



**SECTION 33**  
SHT36



**LEGEND**

← WETLAND/BUFFER CONTINUED

**SECTION 34**  
SHT37

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNIDENTIFIED
2. LAKE WASH SCHOOL DISTRICT #414

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

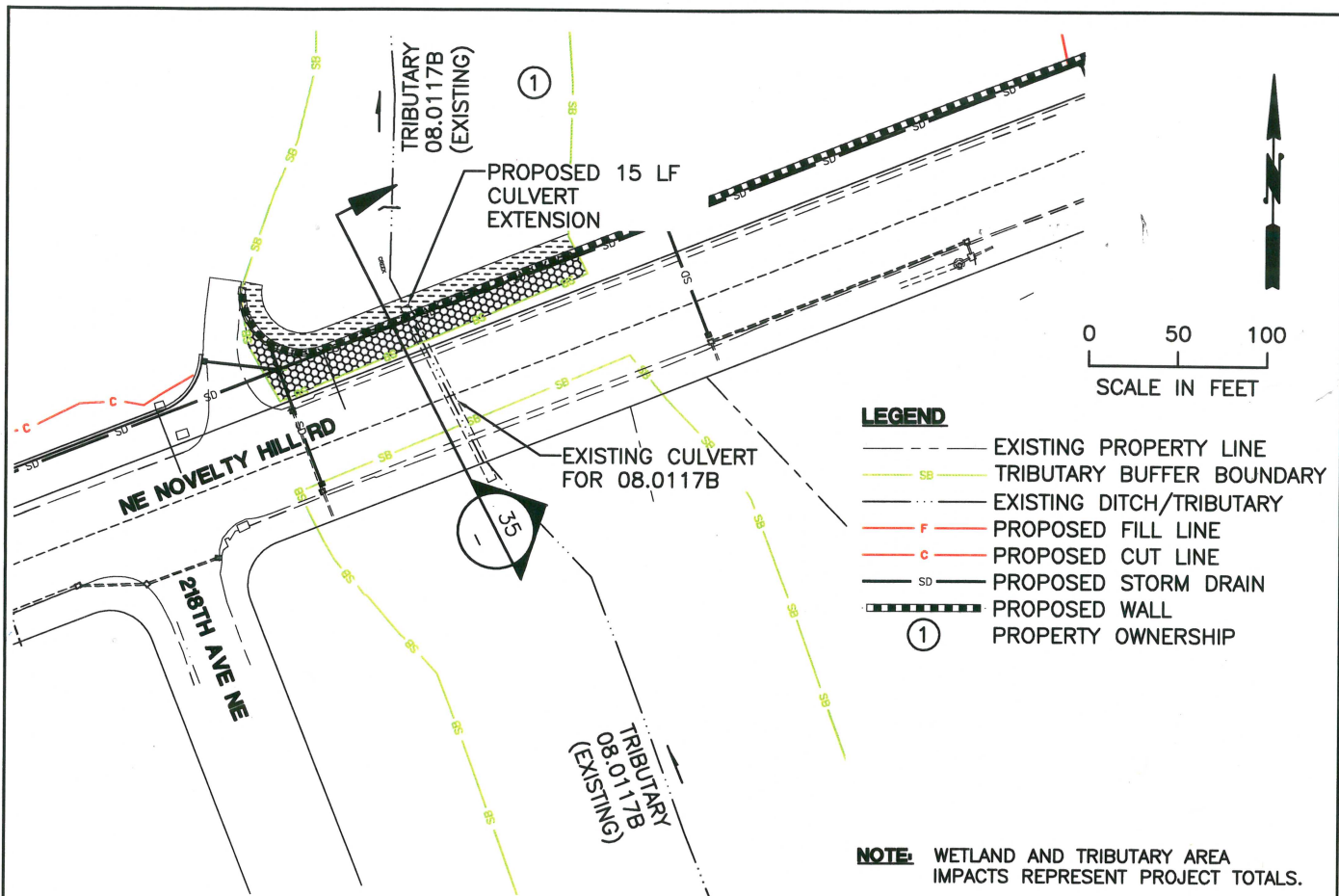
**COUNTY:** KING **STATE:** WA

**SHEET** 38 OF 45

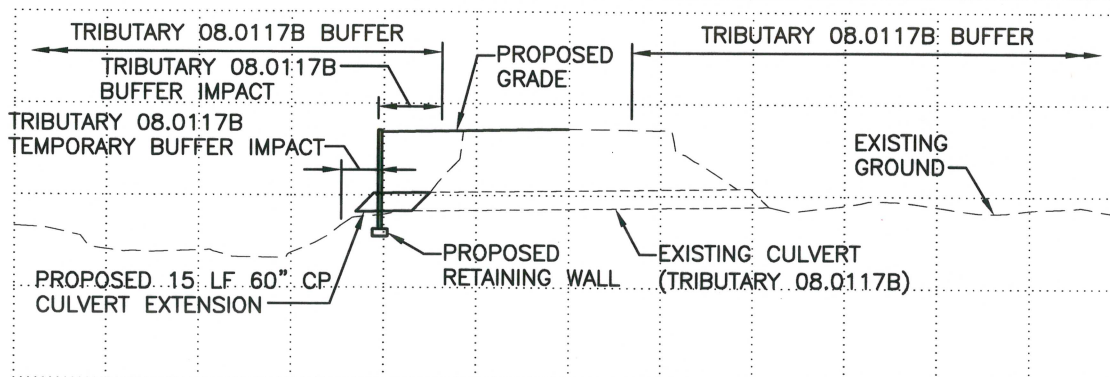
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





TRIBUTARY IMPACTS				
TRIBUTARY NUMBER	AQUATIC AREA TYPE	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
08.0117B	N	18	0.09	0.05



**LEGEND**

← BUFFER CONTINUED

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. LAKE WASH SCHOOL  
DISTRICT #414

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

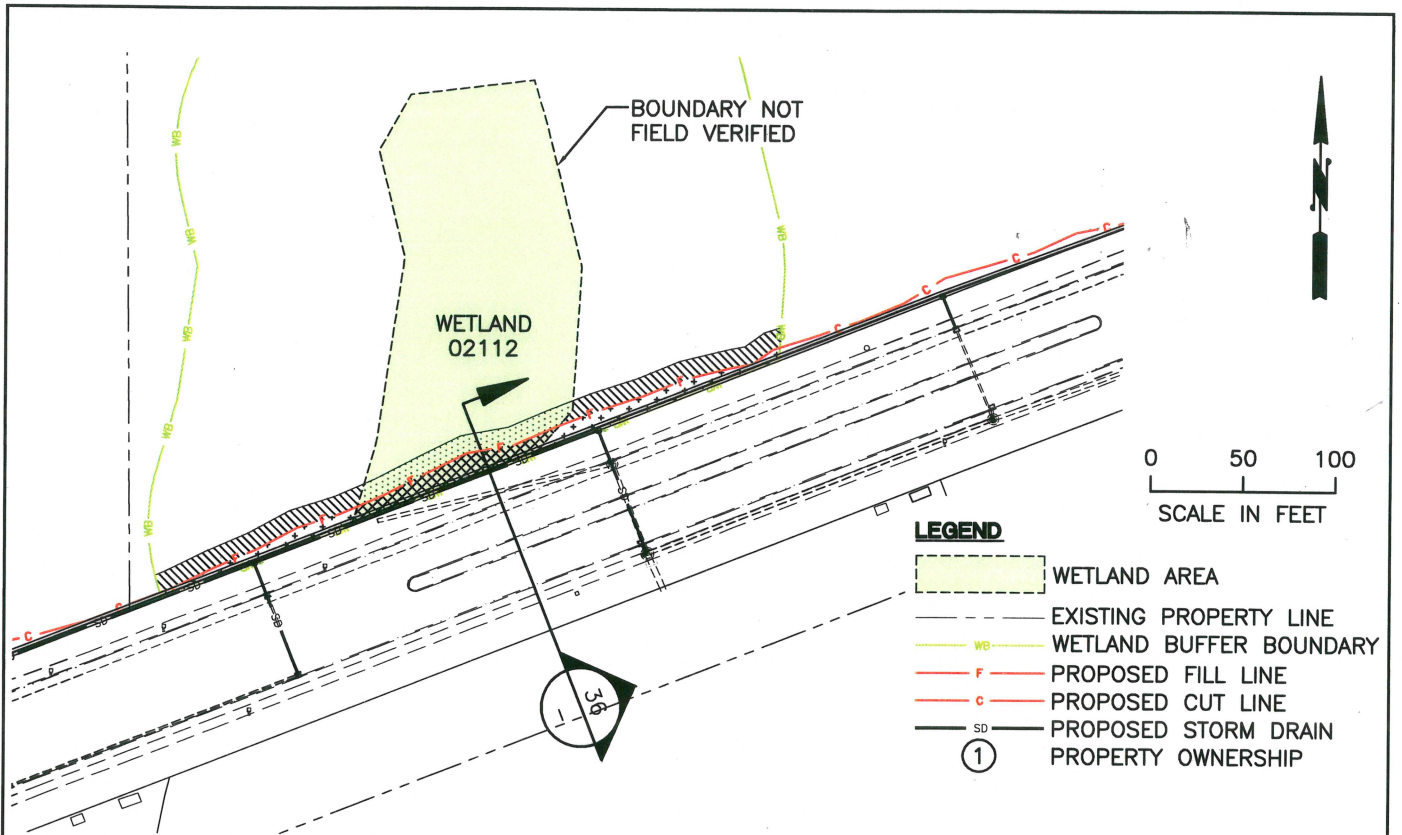
**STATE:** WA

**SHEET** 39 OF 45

**DATE:** JANUARY 2009

COE Ref. No.

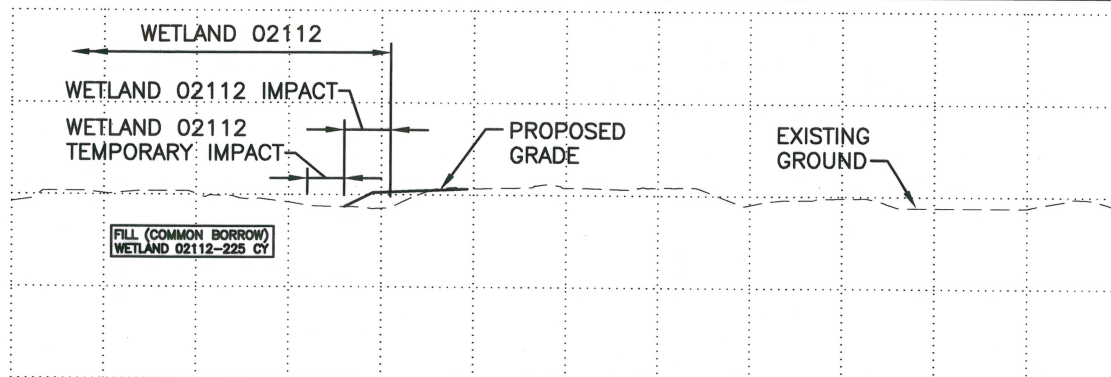
NWS-2008-350



**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
02112	I	0.47	0.03	0.03	0.04	0.06



**SECTION 36**

**SCALE IN FEET**

0 25 50

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. LAKE WASH SCHOOL  
DISTRICT #414

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

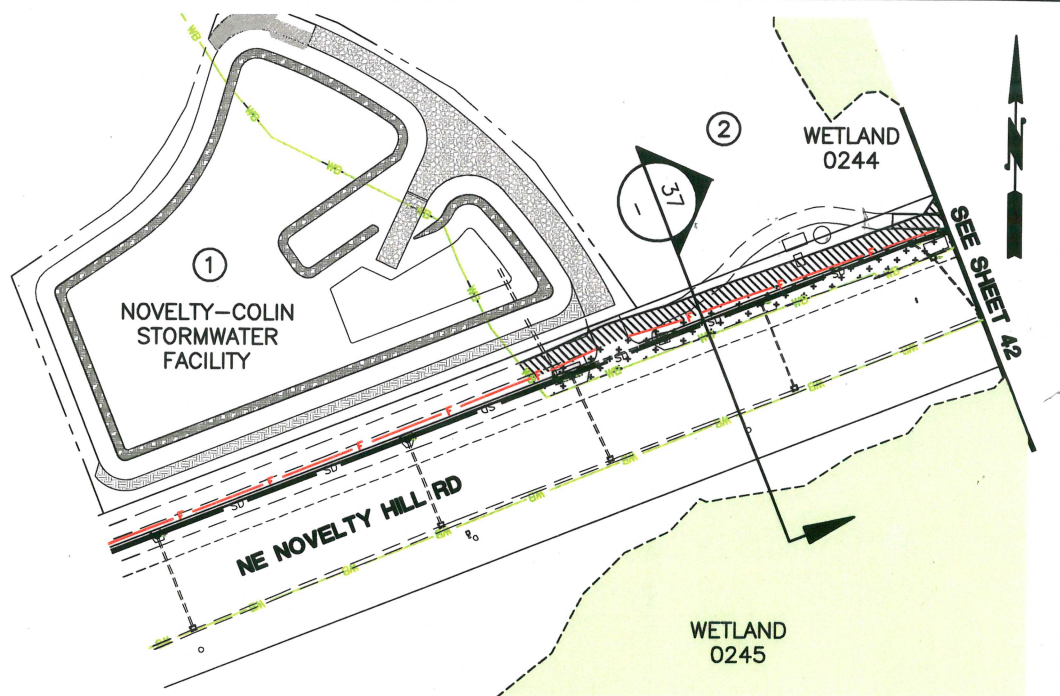
**COUNTY:** KING **STATE:** WA

**SHEET** 40 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350





#### LEGEND

- WETLAND AREA
- EXISTING PROPERTY LINE
- WB WETLAND BUFFER BOUNDARY
- F PROPOSED FILL LINE
- C PROPOSED CUT LINE
- SD PROPOSED STORM DRAIN
- ① PROPERTY OWNERSHIP

#### WETLAND VEGETATION PRESENT:

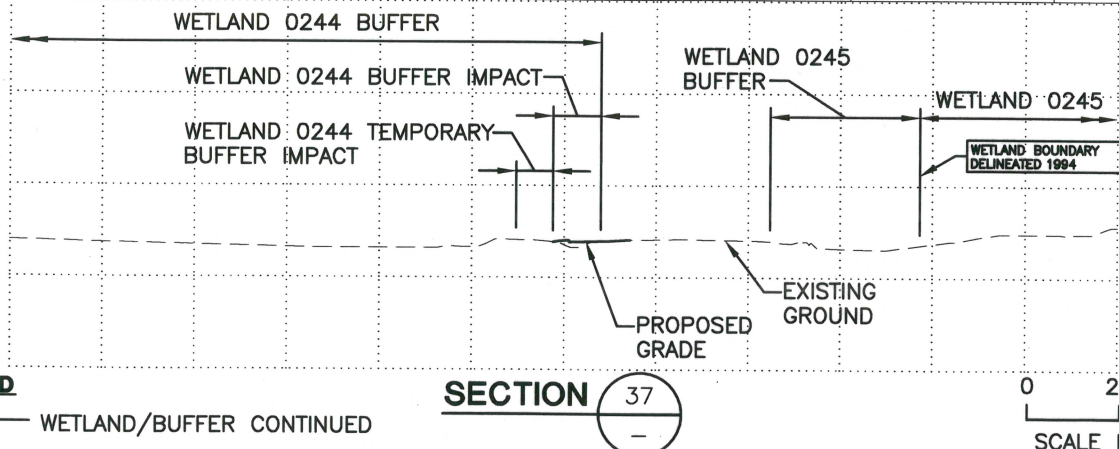
RED ALDER, OREGON ASH, WESTERN RED CEDAR, WESTERN HEMLOCK, VINE MAPLE, RED-OSIER DOGWOOD, SALAL, BOG LAUREL, LABRADOR TEA, SEDGE, LADY FERN, SLOUGH SEDGE, QUAKING ASPEN, BLACK COTTONWOOD, WILD CRABAPPLE

0 50 100  
SCALE IN FEET

**NOTE:** WETLAND AND TRIBUTARY AREA IMPACTS REPRESENT PROJECT TOTALS.

#### WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
0244	I	67.72	0.02	0.02	0.25	0.15



#### LEGEND

← WETLAND/BUFFER CONTINUED

#### SECTION

37

0 25 50  
SCALE IN FEET

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. KING COUNTY
2. UNIDENTIFIED

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET** 41 OF 45

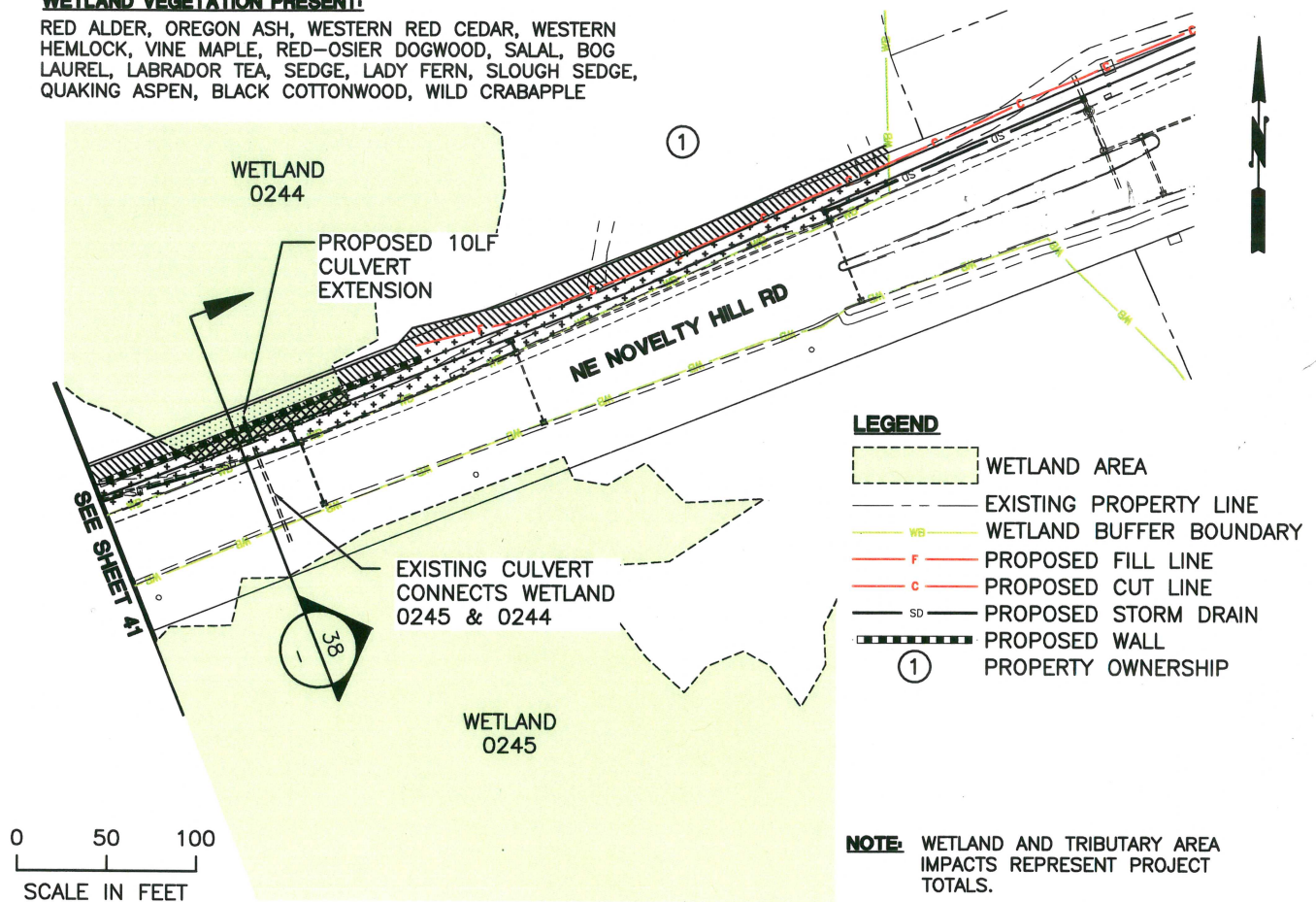
**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

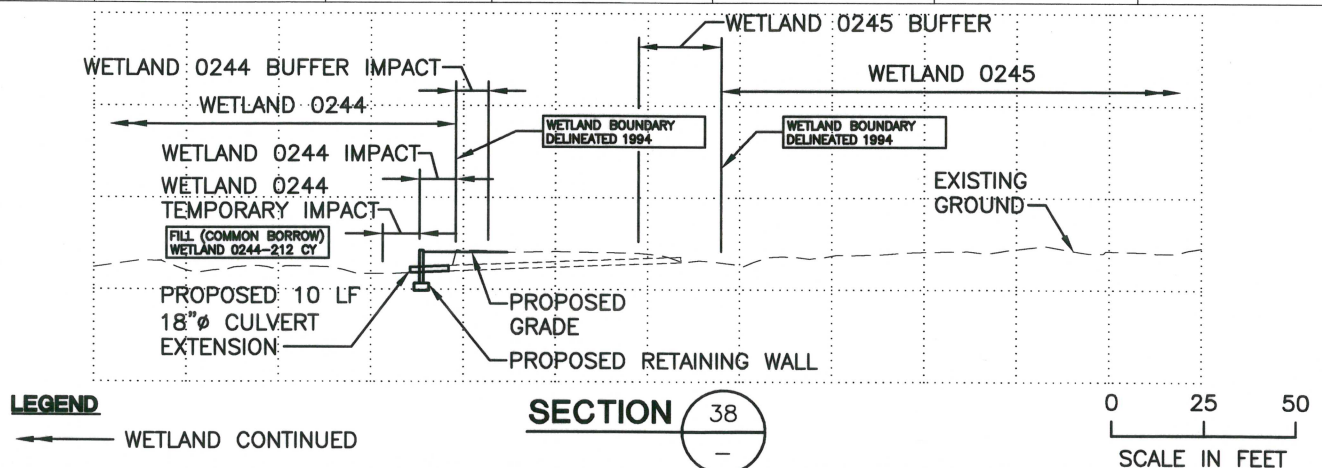


**WETLAND VEGETATION PRESENT:**

RED ALDER, OREGON ASH, WESTERN RED CEDAR, WESTERN  
HEMLOCK, VINE MAPLE, RED-OSIER DOGWOOD, SALAL, BOG  
LAUREL, LABRADOR TEA, SEDGE, LADY FERN, SLOUGH SEDGE,  
QUAKING ASPEN, BLACK COTTONWOOD, WILD CRABAPPLE

**WETLAND IMPACTS**

WETLAND NUMBER	WETLAND CATEGORY (ECOLOGY 2004)	WETLAND SIZE (AC)	PERMANENT WETLAND IMPACT (AC)	TEMPORARY WETLAND IMPACT (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)
0244	I	67.72	0.02	0.02	0.25	0.15



**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

1. UNIDENTIFIED

**NAME:** KING COUNTY/BEAR CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

NOVELTY HILL RD BETWEEN  
196TH AVE NE AND 234TH PL NE

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING

**STATE:** WA

**SHEET:** 42 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

### TABLE 1: WETLAND IMPACTS

WETLAND NUMBER	WETLAND CATEGORY RATING	BUFFER WIDTH	PERMANENT WETLAND IMPACTS (AC)	TEMPORARY WETLAND IMPACTS (AC)	PERMANENT BUFFER IMPACTS (AC)	TEMPORARY BUFFER IMPACTS (AC)	FILL QUANTITY (CY)
0244	I	225	0.02	0.02	0.25	0.15	212
1815	I	150	0.00	0.00	0.00	0.06	0
1853	I	150	0.03	0.03	1.02	0.57	24
1892	I	150	0.00	0.01	0.03	0.06	0
02111	I	110	0.12	0.09	0.23	0.08	557
02112	I	110	0.03	0.03	0.04	0.06	225
*0248	II	150	0.01	0.25	0.13	0.71	18
1873	II	75	0.00	0.07	0.10	0.14	0
1889	II	100	0.01	0.01	0.28	0.05	0
02102	II	50	0.02	0.02	0.12	0.05	160
02109	II	75	0.05	0.04	0.09	0.04	137
02110	II	75	0.00	0.01	0.20	0.15	0
1888	III	50	0.00	0.00	0.01	0.01	0
02103	III	40	0.00	0.01	0.04	0.03	56
02126	III	80	0.00	0.01	0.21	0.07	0
*02129	III	80	0.00	0.21	0.00	1.25	0
1854	IV	50	0.14	0.04	0.10	0.04	110
1874	IV	40	0.01	0.01	0.06	0.03	14
1890	IV	50	0.08	0.04	0.05	0.02	104
02100	IV	50	0.00	0.00	0.02	0.08	0
02105	IV	40	0.00	0.01	0.10	0.03	0
02106	IV	40	0.04	0.03	0.14	0.02	1075
02108	IV	40	0.00	0.00	0.02	0.01	0
02120	IV	40	0.11	0.00	0.23	0.05	650
02125	IV	50	0.00	0.00	0.02	0.02	0
*02127	IV	40	0.00	0.12	0.00	0.58	0
*02128	IV	50	0.92	0.23	1.08	0.69	0
TOTAL			1.59	1.29	4.57	5.05	3342

NOTES:

1. \* INCLUDES IMPACTS LOCATED ON THE PROPOSED MITIGATION SITES - SEE TABLE 3.

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

**NAME:** KING COUNTY/BEAR CREEK BASIN  
**REFERENCE:** & EVANS CREEK BASIN

**SITE LOCATION ADDRESS:**

UNION HILL RD, NOVELTY HILL RD,  
196TH AVE NE AND NE 95TH ST

## PROPOSED: ROADWAY IMPROVEMENTS

**NEAR: REDMOND**

**COUNTY:** KING **STATE:** WA

**SHEET 43 OF 45**

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350

TABLE 2: TRIBUTARY IMPACTS

TRIBUTARY NUMBER	AQUATIC AREA TYPE	AQUATIC BUFFER WIDTH	DIRECT CHANNEL IMPACT (LF)	PERMANENT BUFFER IMPACTS (AC)	TEMPORARY BUFFER IMPACTS (AC)	DIRECT CHANNEL IMPACT (MITIGATION) (LF)
EVANS CREEK (08.0106)	S	165	45	0.09	0.02	100.00
08.0107	F	165	590	1.25*	0.08*	389.00
08.0107A	F	165	1507	0.56	0.36	0.00
STENSLAND CREEK (08.0114)	F	165	290	3.31*	7.35*	3134
08.0114A	F	165	33	0.31	0.06	0.00
08.0117A	F	165	32	0.00	0.00	0.00
08.0107B	N	100	95	0.36	0.14	0.00
08.0114E	N	100	192	0.54	0.10	0.00
08.0117B	N	100	18	0.09	0.05	0.00
TOTALS			2802	6.51	8.16	3623

\* INCLUDES PERMANENT AND TEMPORARY IMPACTS LOCATED ON THE PROPOSED MITIGATION SITES - SEE TABLE 3.

TABLE 3: SUMMARY OF MITIGATION RELATED IMPACTS

IMPACT AREA	PERMANENT IMPACTS (AC)	TEMPORARY IMPACTS (AC)	PERMANENT BUFFER IMPACTS (AC)	TEMPORARY BUFFER IMPACTS (AC)
WETLANDS	0.92	0.80	1.08	3.17
TRIBUTARIES	0.00	0.00	1.41	6.68
TOTAL	0.92	0.80	2.49	9.85

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**PURPOSE:** INCREASE CAPACITY

**NAME:** KING COUNTY/BEAR CREEK BASIN  
& EVANS CREEK BASIN

**SITE LOCATION ADDRESS:**  
UNION HILL RD, NOVELTY HILL RD,  
196TH AVE NE AND NE 95TH ST

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND  
**COUNTY:** KING **STATE:** WA

**SHEET** 44 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350



TABLE 5: SUMMARY OF TRIBUTARY IMPACTS AND PROPOSED MITIGATION

STREAM TYPE	DIRECT CHANNEL IMPACTS FROM ROAD IMPROVEMENTS (LF)	LOSS OF CHANNEL LENGTH FROM ROAD IMPROVEMENTS (LF)**	REQUIRED ONSITE MITIGATION RATIO	REQUIRED OFFSITE MITIGATION RATIO	ONSITE MITIGATION REQUIREMENTS (LF)	OFFSITE MITIGATION REQUIREMENTS (LF)	IN-STREAM MITIGATION PROPOSED (LF)*
TYPE S/F	2497	1,507	1:1	1.5:1	990	2,261	3,623
TYPE N	305	0	1:1	2:1	305	0	0
TOTAL	2802	1,507	—	—	1,295	2,261	3,623

NOTE: IN ADDITION TO THE 1,507 LINEAR FEET OF CHANNEL LOST DUE TO ROAD IMPROVEMENTS, 826 LINEAR FEET OF CHANNEL WILL BE LOST AS A RESULT OF MITIGATION-RELATED STREAM RELOCATIONS.

\* IN-STREAM MITIGATION IS ENHANCEMENT TO EXISTING DEGRADED TYPE F CHANNELS AND DOES NOT INCREASE OVERALL CHANNEL LENGTH.

\*\* THIS IMPACT IS A SUBSET OF THE DIRECT CHANNEL IMPACTS.

## DRAINAGE FEATURE SUMMARY TABLE

SHEET	LOCATION	FEATURE
4	UNION HILL ROAD AT EVANS CREEK	BRIDGE REPLACEMENT OVER EVANS CREEK
8	960 FEET NORTH OF UNION HILL RD ON 196TH AVE NE	CULVERT REPLACEMENT OF EXISTING CROSSING OF 196TH AVE NE TO CONVEY ROADSIDE DRAINAGE ONLY
8	1320 FEET NORTH OF UNION HILL RD ON 196TH AVE NE	NEW BOX CULVERT CROSSING UNDER 196TH AVE NE TO CARRY REALIGNED TRIBUTARY 08.0107
13	2570 FEET NORTH OF UNION HILL RD ON 196TH AVE NE	NEW BOX CULVERT CROSSING UNDER 196TH AVE NE TO CARRY REALIGNED TRIBUTARY 08.0107A
14	360 FEET SOUTH OF NE 95TH ST ON 196TH AVE NE	CULVERT REPLACEMENT TO CARRY TRIBUTARY 08.0107B.
15	100 FEET AND 160 FEET SOUTH OF NE 95TH ST ON DRIVEWAY	NEW BOX CULVERTS TO CARRY REALIGNED STENSLAND CREEK.
16	460 FEET WEST OF 196TH AVE NE ON NE 95TH ST	NEW BOX CULVERT REPLACING EXISTING CULVERT CROSSING UNDER NE 95TH ST CARRYING REALIGNED STENSLAND CREEK.
18	320 FEET NORTH OF NE 95TH ST ON 196TH AVE NE	NEW BRIDGE CROSSING OVER STENSLAND CREEK.
23	450 FEET WEST OF 197TH CT NE ON NE NOVELTY HILL RD	CULVERT REMOVAL IN STENSLAND CREEK
30	130 FEET SOUTH OF NOVELTY HILL RD NE ON 280TH AVE NE	CULVERT EXTENSION OF EXISTING CROSSING UNDER 208TH AVE NE FOR 08.0114A
31	510 FEET EAST OF 208TH AVE NE ON NE NOVELTY HILL RD	CULVERT EXTENSION OF EXISTING CROSSING UNDER NE NOVELTY HILL RD BETWEEN WETLAND 0248 AND WETLAND 02106
37	510 FEET EAST OF 214TH AVE NE ON NE NOVELTY HILL RD	CULVERT EXTENSION OF EXISTING CROSSING UNDER NE NOVELTY HILL RD CARRYING TRIBUTARY 08.0117A
39	170 FEET EAST OF 218TH AVE NE ON NE NOVELTY HILL RD	CULVERT EXTENSION OF EXISTING CROSSING UNDER NE NOVELTY HILL RD CARRYING TRIBUTARY 08.0117B
42	810 FEET WEST OF 234TH PL NE ON NE NOVELTY HILL RD	CULVERT EXTENSION OF EXISTING CROSSING UNDER NE NOVELTY HILL RD CONNECTING WETLANDS 0244 & 0245

**PURPOSE:** INCREASE CAPACITY

**DATUM:** (NAVD 83-91)

**ADJACENT PROPERTY OWNERS:**

**NAME:** KING COUNTY/BEAR CREEK BASIN  
& EVANS CREEK BASIN

**REFERENCE:**

**SITE LOCATION ADDRESS:**

UNION HILL RD, NOVELTY HILL RD,  
196TH AVE NE AND NE 95TH ST

**PROPOSED:** ROADWAY IMPROVEMENTS

**NEAR:** REDMOND

**COUNTY:** KING **STATE:** WA

**SHEET** 45 OF 45

**DATE:** JANUARY 2009

COE Ref. No.  
NWS-2008-350